

**EFFECT OF FOREIGN EXCHANGE RISK MANAGEMENT ON FINANCIAL
PERFORMANCE OF FLOWER FIRMS IN MERU COUNTY, KENYA.**

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**A Thesis Submitted to the School of Business and Economics in Partial Fulfillment
of the Requirements for the Conferment of the Degree of Masters of Business
Administration of Kenya Methodist University**

July, 2025

DECLARATION AND RECOMMENDATION

Declaration

I certify that the work reported in this thesis is entirely unique and has never been submitted to another institution for a degree.

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DEDICATION

I wholeheartedly dedicate this work to my lovely sisters; Amina Abdullahi, Zainab Abdullahi and Rukia Abdullahi for being my strongest support system throughout my life and through this work.

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I would like to express my heartfelt gratitude to my supervisors, Fredrick Mutea and Ruth Kanyaru, for their invaluable guidance and support throughout every stage of this thesis. My sincere appreciations go to the Kenya Methodist University for providing resources needed in ensuring that this work is a success. Finally, I wish to extend my deepest appreciation to my friends and classmates for their unwavering support and encouragement throughout the duration of the master's program.

ABSTRACT

Kenya's flower industry is a vital sector that contributes significantly to the nation's income generation through exports, but it has faced a gradual decline over the past five years, affecting its performance. Earlier research on the relationship between foreign exchange risk management and company performance has highlighted various gaps that require further exploration. As a result, the main objective of this research is to assess how foreign exchange risk management affects the financial performance of flower businesses in Meru County, Kenya. The study is anchored in the Theory of Rational Expectations, the International Fisher Effect Theory, and frameworks from New Institutional Economics. The investigation sought to achieve its aims by utilizing an explanatory research approach, focusing on the leading flower enterprises in Timau, Meru County for a duration of three years (2020 – 2022). Surveys with both open-ended and closed-ended questions were used to collect primary data, while structured tables were used to collect secondary data. The study targeted 158 managers from five well-known firms: P.J Dave Rising Sun Timau Farm, Batian Flowers, Upendo Flowers, Tambuzi, and Uhuru Flowers. This management group consisted of accountants, export managers, and operational managers, all of whom play a crucial role in the creation, selling, and exporting of their flower products. Given the relatively compact size of the study group, a complete census of all 158 participants was conducted. Upon data collection, SPSS software version 27 facilitated the extraction of descriptive statistics and the execution of multiple linear regression analyses to assess the research hypotheses. The hypotheses were tested using multiple linear regression analysis, and mean values and standard deviations were computed using descriptive statistics. The results were then organized into summaries, detailed reports, and frequency distribution tables. The analysis of multiple regression indicated that the R^2 value stood at 0.727, suggesting that the variables related to managing risks from foreign exchange accounted for 72.7% of the changes in the financial outcomes of the floriculture businesses in Timau Meru county. The research further indicated that effective handling of transaction risk, economic risk, and Net Exposure Management associated with foreign currency significantly impacted the financial results of these businesses in Timau Meru county, evidenced by significant values less than 0.05 and coefficients of 0.44, 0.201, and 0.330, respectively. On the other hand, the management of translation risk from foreign exchange showcased a positive, yet not significant, association with financial performance, demonstrated by a p-value of 0.314 and a coefficient of 0.085. The results indicate that the financial performance of floriculture businesses in Timau Meru county is positively impacted by the management of foreign currency risk. Consequently, it is recommended for these businesses to employ a diversified approach towards hedging against foreign currency risks, rather than relying on a singular technique.

TABLE OF CONTENTS

DECLARATION AND RECOMMENDATION	ii
COPYRIGHT.....	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT.....	vi
LIST OF TABLES.....	x
LIST OF FIGURES	xii
ABBREVIATIONS AND ACRONYMS	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem	13
1.3 General Objective.....	15
1.4 Specific Objectives	15
1.5 Research Hypotheses	15
1.6 Significance of the Study.....	16
1.7 Scope of the Study	16
1.8 Study Limitations.....	17
1.9 Assumptions of the Study	18
1.10 Operational Definition of Terms	18
CHAPTER TWO.....	20
LITERATURE REVIEW	20
2.1 Introduction	20
2.2 Theoretical Review.....	21
2.3 Empirical literature review.....	26
2.4 Foreign Exchange Transaction Risk Management and Financial Performance	26
2.5 Foreign Exchange Economic Risk Management and Financial Performance	29
2.6 Foreign Exchange Translation Risk Management and Financial Performance	31
2.7 Foreign Exchange Exposure Net risk management and financial management.....	33
2.8 Literature Review Summary of and Gaps.....	36

2.10 Conceptual Framework	38
2.11 Operational Framework	39
CHAPTER THREE	41
RESEARCH METHODOLOGY	41
3.1 Introduction	41
3.2 Research Design	41
3.3 Location of the Study	42
3.4 TargetPopulation.....	43
3.5 Sampling Technique	43
3.6 Data Collection Instruments	44
3.7 Piloting of Research Instruments	45
3.8 Data Collection Procedure	47
3.9 Data Analysis and Presentation	47
3.10 Ethical Considerations.....	49
CHAPTER FOUR	51
RESULTS AND DISCUSSION.....	51
4.1 Introduction	51
4.2 Response Rate.....	51
4.3 Reliability Testing	52
4.4 Demographic Response	53
4.5 Descriptive Analysis.....	57
4.6 Inferential Analysis.....	69
4.7 Diagnostic Tests	73
4.8 Regression Analysis	78
CHAPTER FIVE.....	84
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	84
5.1 Introduction	84
5.2 Summary	84
5.3 Conclusions	86
5.4 Policy Recommendations	88
5.5 Suggestions for Further Research	90

REFERENCES	90
APPENDICES	100
Appendix I: Introduction Letter.....	100
Appendix II: Questionnaires.....	101

LIST OF TABLES

Table 3.1 Target Population	43
Table 4.1: Response Rate	51
Table 4.2: Reliability Statistics	53
Table 4.3: Level of Education	54
Table 4.4: Duration in the Export.....	55
Table 4.5: Use of Foreign Currency Risk Management Programme	56
Table 4.6: Risk Management Policies	57
Table 4.7: Currency of Invoice.....	58
Table 4.8: Profit before Interest and Tax	59
Table 4.9: Total Assets.....	60
Table 4.10: Current Liabilities	60
Table 4.11: Return on Capital Employed (R.O.C.E).....	61
Table 4.12: Analysis of Transaction Risk Management	62
Table 4.13: Analysis of Economic Risk Management	64
Table 4.14: Analysis of Translation Risk Management	66
Table 4.15: Analysis of Exposure Netting risk management	68
Table 4.16: Correlation.....	70
Table 4.17: Normality Test Results.....	75
Table 4.18: Multicollinearity Test.....	76
Table 4.19: Durbin-Watson Test	77
Table 4.20: Model Summary	78
Table 4.21: ANOVA	79

Table 4.22: Regression Coefficients	81
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LIST OF FIGURES

Figure 1: Theoretical Framework.....	26
Figure 2.1: Conceptual framework.....	38
Figure 2.2: Operationalized Framework	39

ABBREVIATIONS AND ACRONYMS

EU	European Union
FECs	Exchange Contracts
FPEAK	Fresh Produce Exporters Association of Kenya
FRAs	Forward Rate Agreements
GDP	Gross Domestic Product
IFE	Fisher Effect Theory
NACOSTI	National Council for, Science, Technology, and Innovation
ROA	Return on Assets
ROCE	Return on capital employed
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
US	United States

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The main objective of corporate governance is to improve the wealth of stakeholders, which is usually stated in monetary terms (Ahmad & Hussanie, 2018). In their daily operations, businesses utilize financial performance as a barometer to determine how well they are using their resources to generate income (Mangesti, 2019). As a result, leaders must quantify their initiatives and practices in fiscal terms to evaluate if they have the potential to meet their liabilities. While conducting business, firms often encounter uncertainties that may disrupt operations and lead to a deterioration in financial performance (Grellmann et al., 2022). These uncertainties often culminate in risks that, if left unidentified, assessed, and managed, could potentially trigger financial setbacks (Reason, 2016).

The Kenyan economy relies heavily on agriculture as its primary propeller. This sector stimulates economic expansion and progression through its contribution to the Gross Domestic Product (GDP). A 2019 report by the Food and Agriculture Organization stated that agriculture directly accounted for approximately 26% of GDP in Kenya, with an indirect contribution of 27% through the reciprocal ties with other economic sectors such as the service industry. The agricultural industry, which includes horticulture as one of its six sectors, contributes significantly to economic growth and poverty alleviation. This is achieved through foreign exchange earnings, job creation, and roughly 60% of total export earnings (Food and Agriculture Organization, 2019). The Kenya Flower Council (2017)

ranks it as the third most significant foreign exchange earner after tea and tourism. Hence, it is crucial to evaluate the performance of the horticulture sector in Kenya.

In Kenya, the horticulture industry predominantly consists of the production of fruits, vegetables, and cut flowers. These exports contribute roughly 1.44% to Kenya's overall GDP (FAO, 2019). Among these, cut flower exports account for about 1% of the GDP (Kenya Flower Council, 2019). According to the Horticultural Crops Directorate Authority (2018), the Kenyan flower industry has seen substantial growth over the past twenty years. The country maintains a leading stance in exporting flowers to the European Union (EU), securing a market share of about 38%. Roughly half of Kenyan cut flower exports are transacted through Dutch Auctions, with the rest secured through direct sales (Kenya Flower Council, 2019).

In 2022, the export of Kenyan horticulture saw a 10% increase, reaching 166.76 billion shillings (approximately 1.23 billion USD) compared to 1.1 billion dollars in 2021. The number of flowers sent rose by 21.5 percent from 129,052.2 metric tons in 2021 to 159,466 metric tons in 2022. The overall value of the horticulture industry witnessed a surge of 9.7 percent, reaching Ksh.120, 820.17 million in 2022 from Ksh.103, 538.9 million in 2021 (Horticultural crops directorate, 2023). However, as evidenced by the drop in export value in relation to volume, the declining shilling has had a detrimental impact on horticultural enterprises' profitability. If the local currency had been more robust or reliable, they would have received more money. Export sectors are integral to a nation's growth due to the influx of foreign currency they facilitate (Greve & Were, 2019). This is evidently clear in Kenya's cut flower sub-sector, a significant source of foreign cash.

According to the Central Bank of Kenya's annual report for 2022, horticulture is the third-most lucrative agricultural sub-sector in Kenya after tourism and tea in terms of foreign currency profits. Risks that might cause changes in currency and income must be managed because of the sector's importance to the Kenyan economy. When a payment is made in a currency other than the organization's base currency, the risk of loss due to fluctuations in exchange rates is known as "foreign exchange risk.". As of April 2024, Kenya is home to over 123 flower firms, producing a variety of flowers for both local and international markets, according to the Kenya Flower Council (KFC). Established in 1996 by Kenyan cut-flower growers and exporters, KFC is a business membership organization representing approximately 80% of the country's flower industry. Its key functions include advocacy, fostering partnerships, ensuring compliance, managing industry data, facilitating trade, driving sustainable innovation, and promoting the Kenyan flower brand (KFC, 2024).

1.1.1 Foreign Exchange Risk Management

According to the definition provided by Sayed and Gayathri (2023), foreign exchange rate risk is the financial hazard that results from unforeseen movements in the exchange values of different currencies. According to Agnihotri and Arora (2021), the exchange rate of a currency is one of the most important factors in determining how an economy strikes a balance between the production and spending of local and foreign goods. The volatility of foreign exchange rates notably influences the short-term performance of organizations with international interests, and also bears significant impact on long-term corporate strategies, such as decisions regarding manufacturing sites (Badhan et al., 2024).

The concept of foreign exchange risk management pertains to the deployment of specific tactics to minimize potential financial losses that might stem from conducting monetary transactions in a currency other than the company's native currency (Hernawaty et al., 2020). Businesses use operational and financial techniques to control risk and exposure in foreign exchange operations. The types and magnitudes of risks that multinational corporation faces determine how much currency fluctuations impact the company's foreign-currency operations (Choi et al., 2021). Historically, diversification of operations and usage of forward contracts have been the standard methods for managing foreign exchange risk. Multinational corporations have adopted futures contracts, options, and other risk management strategies, nevertheless, as a result of the expansion of exchange markets (OECD, 2019). Transaction risk, economic risk, and translation risk are three major categories into which these hazards might be placed.

Gupta (2016) suggests that transaction risk is centered around the potential influence on cash flows due to variations in currency exchange rates. This risk is specifically tied to the susceptibility of transactional accounts like import contracts (payables) and export contracts (receivables) to currency shifts. Any variation in the foreign currency tied to a financial agreement directly exposes the company to transaction exchange rate risk (Ogunranti et al., 2021). To manage concerns related to foreign currency, the floriculture sector employs various techniques to handle transaction risk, including futures contracts and forward contracts. The application of these contracts aids in efficiently managing foreign transaction risk. Futures contracts, as defined by Odionye et al. (2023), are legal agreements between two parties, obligating them to buy or sell a predetermined quantity of a foreign currency or financial instrument at a specific price at a future date. These

financial futures are binding contracts that fix the exchange rate and amount for both the buyer and seller, leaving no room for backing out (Gregory, 2020).

Upon entering a futures contract, a firm is required to make an upfront payment, often referred to as a margin, to the futures exchange's clearinghouse. Typically, this margin represents one to three percent of the contract's overall value (David & Adekunle, 2020).

Given the potential for fluctuations in currency exchange rates and interest rates encapsulated in futures contracts, the company's margin account is regularly adjusted. Credits or debits are applied based on whether the contract's terms favor the firm. This variability reflects the inherent risk associated with futures contracts, particularly those involving foreign currency transactions (Gregory, 2020).

Kadioglu et al. (2016) describe a forward contract as a commitment between parties to exchange one asset for another at an agreed-upon price and date in the future. In essence, it is a current contract for the delivery of a particular resource at a predetermined cost in the future. No money is exchanged until the contract's maturity date. A futures contract, a specific type of agreement, includes predetermined delivery dates and quantities and facilitates exchange trading (Majeed, & Zainab, 2021). Forward contracts are categorized into two main types: FECs and FRAs. FECs allow businesses to lock in a specific exchange rate for the future purchase of a predetermined amount of foreign currency. These agreements are usually arranged through commercial banks and are legally binding but non-transferable. Forward Rate Agreements (FRAs) allow businesses to fix a predefined borrowing or deposit rate for a given future time based on a hypothetical principal amount (Mimmakka, 2018).

Economic risk refers to the possibility that fluctuations in exchange rates could decrease the future operational cash flows of a company. This risk primarily affects the present value of cash flows for both overseas subsidiaries and the parent company, potentially having a negative impact on their financial outlook (Tiwary, 2019). Cut flower firms also employ economic risk management techniques to mitigate the effects of foreign exchange fluctuations. To increase their overall financial performance, they employ strategies like diversifying their business and picking plant locations strategically (Kuiper & Gemählich, 2017).

Diversifying operations in a way that balances the organization's overall exposure to exchange rate swings is one strategy to lessen the impact of currency rate risk on cash flows. As a natural operational hedge, for instance, combining manufacturing and exporting with an import business that sources competitive consumer goods from foreign producers. This approach helps to ensure that cash flows remain stable even when faced with actual changes in exchange rates. This approach has certain drawbacks in addition to its many benefits. First of all, diversification could cause the company to waste resources by entering markets in which it has no competitive edge. Furthermore, by using this approach, a company may perceive many operations as complementary without carefully examining the economic feasibility of each one separately, which could result in long-term losses and elevated risks (Rueanjaiman, & Christine, 2024).

Establishing manufacturing capacity in several nations and having production expenses denominated in numerous currencies appear to be strategies for exploiting the relative cost changes brought about by actual currency swings. The simplest strategy is to move

production to a market where rivals are present. In this manner, any cost advantage derived from changes in exchange rates also helps the company. As an alternative, setting up a plant in a nation with a surplus of labor and raw materials can give access to such resources with less risk associated with exchange rates. In order to assess the efficacy of such a hedge, it is important to take into account the correlation between that nation's currency rate and those of rival nations (Iheanachor & Ozegbe, 2021). In terms of risk management, the main benefit of having plants abroad is the company's ability to adjust production across facilities in reaction to real fluctuations in currency rates. In this way, a company with plants across the globe may meet increasing demand in increasingly expensive locales while operating at full capacity in low-cost locations. Considering that plant establishment takes years, this method is frequently used to manage operational exposure over the long run (Mandigma, 2021).

Currency translation is the process of changing a foreign entity's functional currency used in its yearly financial reports to the currency used in the reporting company's financial statements. Companies that have foreign currency-denominated liabilities and assets run the risk of translation or consolidation. (Savić et al., 2019). The accounts of a foreign subsidiary are adjusted using a foreign exchange rate when they are combined into group accounts. Gray (2017) identifies several types of translation rates, including monetary and non-monetary rates, current and non-current rates, closing or current rates, and temporal rates. When using the temporal approach, inventory is often translated at a historical rate; however, if it is recorded at market prices, it can be converted at the current rate or at replacement costs. Current currency rates are typically used to translate financial liabilities and assets, whereas historical exchange rates are used to translate owners' equity, non-

financial liabilities, and non-financial assets (Gray, 2017). The subsidiary's functional currency and the financial statement items being translated determine the translation method to use. The gains and losses from foreign currency translation are reflected in net earnings, and monetary assets and liabilities are converted using exchange rates at the balance sheet date. All obligations and assets are converted using the current rate methodology, however existing equity accounts are converted using the historical exchange rate method, which entails possible translation risk because of currency rate volatility (Ahmed, 2015). In order to stabilize consolidated incomes and reduce this volatility, translation gains and losses are recorded in a reserve account rather than the consolidated net income account. Because the effects of currency translation are not included in consolidated earnings accounting, this aids stakeholders in their analysis of the company. The cumulative translation adjustment (CTA), which shows gains or losses from currency translation, is displayed on the balance sheet as an unrealized gain or loss in accordance with the current rate approach (Perez & Howell, 2019).

1.1.2 Financial Performance

Financial performance serves as an indicator that measures the rate or extent of achievement of a specific goal (Tudose et al., 2022). Because it converts a company's operations and policies into financial terms, it is an essential tool for assessing a company's overall financial health over a certain time period (Maianto et al., 2024). In addition, financial performance can be used as a comparative benchmark to evaluate similar firms within an industry or to compile data across different sectors or industries (Gupta, 2016). Profitability, on the other hand, signifies how efficiently a firm uses its resources to generate profit and provide value for its shareholders. The ratio of profit to the different

kinds of resources used by the company in its operations is examined in order to compute this metric (Thacker et al., 2020).

In this research, return on Capital Employed (ROCE) is used as a method to evaluate profitability, keeping in mind the capital that a company has invested in its operations (Islam & Chakraborti, 2015). ROCE can be conveniently calculated using the financial data provided by firms. It is derived by dividing the Profit Before Interest and Taxes (PBIT) by the capital employed by a company (Gregory, 2020). Profitability is an indication of a company's efficiency in using its resources to yield profit and provide value for its shareholders. It is presented as a ratio, comparing profit with the various types of resources employed. A higher profit ratio implies superior financial performance, indicating the effectiveness with which resources are used to generate profit and enhance shareholder value (David & Adekunle, 2020).

Profitability is measured by comparing profits to the various types of resources that a firm utilizes in its operations. A higher profit ratio corresponds to increased profitability (Majeed, & Zainab, 2021). Financial performance evaluates how effectively a company uses its resources to generate profit and provide value to its shareholders. This is presented as a ratio between profit and the various resources employed. A higher profit ratio signifies a higher level of profitability, showcasing the efficiency with which resources are used to generate profit and boost shareholder value (Mimmakka, 2018).

1.1.3 Cut flowers farming

Exports play a crucial role in the economic advancement and progress of a nation, primarily driven by production, economies of scale resulting from international markets, and job creation, especially in developing countries. Kenya has experienced significant

growth in the global flower industry over the past decade. Its presence in export markets has consistently expanded, with a 38% market share in the European Union (EU) market, making it one of the leading exporters (Horticultural Crops Directorate, 2018). According to Hale and Opande (2005), the majority of cut flowers exported to the EU are typically auctioned or sold to wholesalers, with the Netherlands serving as the primary market for flowers. However, Kenya's position as a major flower producer worldwide has been subject to fluctuations due to changing and unpredictable climatic conditions.

Kenya boasts a rich and diverse floral industry, cultivating a variety of cut flowers such as gypsophila, alstroemeria, eryngiums, hypericum, statice, lilies, and roses. As per the data from the Horticultural crop's directorate, it stands as the third-largest producer and exporter of flowers globally, falling behind the Netherlands and Ecuador but leading ahead of Ethiopia, Tanzania, Uganda, Zimbabwe, and Rwanda. Its floral exports have reached numerous corners of the globe, predominantly making their way to the European Union, Australia, Japan, the United Kingdom, and the Middle East. In total, Kenyan flowers are exported to 60 different countries (Kenya Flower Council [KFC], 2018).

The Kenya National Bureau of Statistics (2017) reports that there was a significant growth in horticultural export volumes by nearly 23%, amounting to 323,800 tonnes in the year 2017. The earnings from these exports experienced a jump, reaching Sh.84.1 billion (\$925.1m), which is approximately Sh.700 million (\$7.7m) more than the earnings in 2016. This improvement was mostly due to a 12.5% increase in fruit export revenue, which came to Sh.5.4 billion (\$59.4m). According to Gregory (2020), the sector's return on capital employed (ROCE) was 21.6%.

Despite the substantial growth in 2017, the horticulture sector experienced a decline in export revenues by 11.6% year-on-year during 2018 and 2019. Despite a rise in export volume, earnings from vegetable exports also fell by about 8% in 2019 to Sh.18.8 billion (\$206.8m) (David & Adekunle, 2020). This downtrend also resulted in a reduction in the ROCE to 19.6% in 2018 and 19.2% in 2019. This points to the fact that the increase in export volumes does not directly correlate with export values, thus impacting the overall revenue and profitability of the sector. Over the mentioned period, the sector has seen a reducing trend in ROCE (Mimmakka, 2018). Despite the industry's consistent efforts to improve quality control, it still faces significant challenges due to currency volatility, as pointed out by the Oxford Business Group (2016). This fluctuation in currency exchange rates affects the stability of the sector, causing a continuous change in the value of export revenues and profitability, thereby directly influencing the industry's financial performance.

The most prominent flower shops in the area are located in Timau, Meru County, on the northern slopes of Mount Kenya. The elevation of Timau is 2,600 meters above sea level. Their rose collection encompasses a special selection of fragrant varieties. In terms of sales, flower firms in Timau distribute their products both through the Dutch Flower Auctions and directly to customers such as supermarkets and wholesalers. The primary markets for the company are found in the EU (including Sweden, the UK, the Netherlands, Germany, France, and Italy), the USA, Dubai, Australia, Russia, and Ukraine.

Over time, as flower firms in Timau have expanded, its workforce has become more diverse. The firms acknowledge the value of this diverse workforce in unlocking its full

potential. By incorporating individuals from various backgrounds, the firms have broadened its knowledge base, skills, and cross-cultural understanding. Consequently, the firms have developed the ability to comprehend, connect with, and cater to the diverse and evolving customer base worldwide. The exceptional performance of this diverse and accomplished workforce has consistently upheld the firm's reputation. This drive for innovation and excellence has resulted in flower firms in Timau being recognized as being the leading flower firms' exporters in Kenya (Beutler, 2020).

Samuel (2022) highlighted the profound implications of foreign exchange rate fluctuations on international trade, focusing on the situation in Ghana. His study underscores that for countries heavily dependent on foreign currency exports, unexpected changes in cash flow due to exchange rate variations can adversely impact the profitability and production of their exported goods. For nations like Kenya, which heavily rely on exporting agricultural products like horticulture, tea, and coffee, these exchange rate variations can be particularly worrisome. Given this reliance, Kenya's export earnings are directly exposed to the volatility of exchange rates, making the country highly susceptible to such external shocks (Olasehinde & Olanipekun, 2022).

Moreover, a multitude of external factors can influence an exporting firm's financial performance. These factors can include the government's foreign exchange policies, international competition, and the broader political environment. All these aspects can substantially impact the profitability and financial viability of a company involved in international trade (Chen et al, 2021). Consequently, businesses with global operations have always found the volatility of foreign exchange rates to be a significant concern. This

is primarily because such fluctuations can directly affect future cash flows and, subsequently, the overall valuation of these businesses. With the constant risk of exchange rate fluctuation, these businesses must grapple with an additional layer of financial uncertainty and risk in their operations. Hence, the importance of effective foreign exchange risk management strategies cannot be overstated in the context of global business operations.

1.2 Statement of the Problem

The cut flower industry in Kenya has demonstrated sustained vitality over the past two decades, playing a pivotal role in the country's economic development. This sector has significantly contributed to employment creation, poverty alleviation, and the generation of foreign exchange earnings. Currently, Kenya is a leading exporter of cut flowers to the European Union (EU), with over 90% of its flower exports destined for EU markets, while the remainder serves regional and domestic markets (Gemählich, 2022). When well-structured and efficiently managed, the floriculture industry holds substantial potential to accelerate Kenya's economic growth. Despite its strengths, the financial performance of flower firms in Kenya has shown signs of decline in recent years, with one of the major contributing factors being foreign exchange (FX) rate fluctuations (Chirchir et al., 2015). According to Ahmed (2015), such currency fluctuations can significantly affect both balance sheet items and income statement components, ultimately reducing profitability. Tyce (2020) further emphasizes the severity of this risk by highlighting a decline in Return on Capital Employed (ROCE) within the horticulture sector—from 21.6% in 2017 to 19.2% in 2019—which was attributed in part to adverse currency movements. These

exchange rate variations introduce several types of risks, including transaction risk, translation risk, and economic risk, all of which can erode the net asset value and financial returns of firms.

With globalization and the expansion of firms into international markets, businesses increasingly face exposure to foreign currency risk. Kenya's cut flower subsector, being heavily reliant on exports, is particularly vulnerable to these risks. Currency volatility not only threatens the profitability of exporting firms but also affects strategic decisions related to capital allocation and operational efficiency. Alarming, research indicates that a considerable number of Kenyan horticultural exporters have yet to adopt formal FX risk mitigation strategies, thus leaving themselves susceptible to the adverse impacts of currency fluctuations (Chepoghisho, 2019).

Foreign currency risk management has become a key area of academic inquiry, especially in relation to its influence on financial performance. Several local studies have explored this topic within different sectors of the Kenyan economy. For instance, Muiru et al. (2018); Nzioka and Maseki (2017); Ogada and Achoki (2016); Muriuki (2011) have examined the role of FX risk management in various industries. On the global front, studies such as that by Purnomo et al. (2024) have analyzed the use of financial derivatives and their impact on firm profitability and value. However, many of these investigations have been conducted in different economic contexts and have not specifically addressed the floriculture sector. This gap in the literature highlights the need for a focused investigation into how foreign exchange risk management affects the financial performance of flower firms in Timau, Meru County, Kenya. Given the strategic importance of this region to the floriculture industry and the sector's sensitivity to currency

fluctuations, such a study is both timely and essential. It would contribute to a better understanding of the challenges and opportunities involved in managing foreign exchange exposure within export-driven agricultural enterprises.

1.3 General Objective

This study assessed the effect of foreign exchange risk management on financial performance of lower firms in Meru County, Kenya.

1.4 Specific Objectives

- i. To determine the effect of foreign exchange transaction risk management on financial performance of flower firms in Meru County, Kenya.
- ii. To analyze the effect of foreign exchange economic risk management on financial performance of flower firms in Meru County, Kenya.
- iii. To analyze the effect of foreign exchange translation risk management on financial performance of flower firms in Meru County, Kenya.
- iv. To analyze the effect of Exposure Netting risk management on financial performance of flower firms in Meru County, Kenya.

1.5 Research Hypotheses

- i. **H₀₁**: Foreign exchange transaction risk management has no significant effect on financial performance of flower firms in Meru County, Kenya.
- ii. **H₀₂**: Foreign exchange economic risk management has no significant effect on financial performance of flower firms in Meru County, Kenya.
- iii. **H₀₃**: Foreign exchange translation risk management has no significant effect on financial performance of flower firms in Meru County, Kenya.

- iv. **H04:** Exposure Netting risk management has no significant effect on financial performance flower firms in Meru County, Kenya.

1.6 Significance of the Study

The outcomes of this research hold potential value for a wide range of stakeholders upon implementation and application. These stakeholders encompass the cut flower industry, management professionals, government policymakers, scholars, and educators, among others. In the context of the horticulture industry and its management, the findings can prove to be beneficial by shedding light on the true impact of foreign exchange volatility on financial performance. Moreover, it offers insights into strategies to mitigate foreign exchange losses and enhance profitability. Armed with this knowledge, cut flower companies can adopt effective methods to optimize their financial gains.

In addition, the study bears significance for government policymakers. A thriving industry fosters increased trade within the sector, thereby augmenting tax revenues and contributing to overall economic growth. Given the substantial role played by the cut flower sector in the Kenyan economy, this research aids in effectively managing international trade.

Furthermore, scholars and academics stand to benefit from this study. It not only expands the existing body of knowledge but also provides valuable literature for related studies. Consequently, it enhances the overall understanding of the subject matter and serves as a valuable reference for future research endeavors.

1.7 Scope of the Study

The objective of this study was to examine the effect of foreign exchange risk management on five dominant flower firms in Timau, Kenya, namely, P.J. Dave Rising Sun Timau

Farm, Batian Flowers, Upendo Flowers, Tambuzi, and Uhuru Flowers. The study gathered information from the management of the five dominant cut flower companies in Timau, Meru County. The management team included accountants, export managers, and operational managers directly involved in producing, selling, and exporting their produce(flowers). The cut flower industry was particularly suitable for this research because its financial performance was heavily influenced by changes in exchange rates, given its reliance on exports. The study analyzed a 5-year period from June 2018 to December 2022 to assess financial performance. The concentration of cut flower businesses in the area led to the selection of this region for the study, guaranteeing that the information gathered was representative of the nation's larger flower sector. Transaction, economic, translation, and exposure netting risk management were the four study factors that were the subject of the investigation.

1.8 Study Limitations

The research faced some challenges including; the availability and quality of data varied across different flower farms; this made it difficult to generalize the findings. The study might have faced limitations in terms of sample size and representativeness. The number of flower farms included in the study could have been limited, which might have affected the generalizability of the findings to the wider industry. Additionally, the sample might not have been representative of all types of flower farms in Kenya, potentially leading to biased results. However, the researcher used phone reminders to the respondents on the completion of the questionnaire to improve the response rate. The accuracy of the data may have been impacted by respondents' overstatement or understatement of their financial performance or foreign exchange risk management procedures, as the study was

dependent on responses from the chosen respondents. To mitigate these limitations, researchers applied appropriate research design, considered multiple data sources, used robust statistical methods, acknowledged the potential confounding variables, and discussed the limitations and potential biases in the study's findings.

1.9 Assumptions of the Study

This study was based on the assumption that dominant flower firms in Timau were involved in importing or exporting goods and services, thereby exposing the company to foreign exchange risks, and that the exchange rates in Kenya fluctuated significantly, which created foreign exchange risks for flower firms. Additionally, it was considered that management of flower companies had put certain policies or procedures in place to control foreign exchange risks and that changes in exchange rates directly affected the financial performance of flower companies. Lastly, the study assumed that the financial performance of flower firms in dominant Timau could be quantitatively measured using relevant financial metrics, such as revenue, profit margins, return on investment (ROI), or other performance indicators. The outcome of this study was generalized to other flower firms in the country since they carried out similar functions and targeted markets in European countries.

1.10 Operational Definition of Terms

Financial Performance An independent measured applied to assess how sound an organization is performing economically. In this study, it is the return on capital employed (Jeevanandam, 2020).

Financial Risk	Any fluctuations in the financial performance and worth of a firm because of exchanged rate fluctuations (Jeevanandam, 2020).
Foreign Economic Risk Management	Strategies used by a firm to reduce potential losses in revenues and expenses due to denomination in a different currency. In this study, it was measured through the extent of usage of diversifying operations and plant location (Sayed & Gayathri, 2023).
Foreign Exchange Risk Management	In this study, three types of risk management were considered which included management of transaction risk, and translation risk, and economic risk (Sayed & Gayathri, 2023).
Foreign Exchange Risk	Exposure to potential financial losses as a result of a foreign currency's decline in value relative to the country's own money, as represented by the Central Bank of Kenya. In this study, this includes economic risk, translation risk, and transaction risk (He et al., 2014).
Foreign Exchange Transaction risk	The extent to which local currency values are realized as a result of cash flows to an organization emanating from its foreign currency-denominated transactions. This study focused on currency rate variations on payables,

receivables, and dividend repatriation accounts (Adams &Verdelhan, 2021).

Foreign Exchange Translation risk	The possibility that a firm's equity, assets, obligations, or revenue would depreciate in value as a consequence of currency fluctuations. This was measured through the average rate (Lily et al., 2018)
Foreign Transaction Risk Management	Strategies for mitigating possible financial losses incurred by a business as a result of contractual cash flows denominated in foreign currencies. In this study, it was measured through the extent to which futures and forward contracts were used (Hong et al., 2018).
Foreign Translation Risk Management	A firm's strategies for mitigating the risk of a decline in the value of its equity, liabilities or assets, as a consequence of their denomination in a currency that is different from the organization's base currency. In this study, it was measured through extent of usage of currency swaps and hedging (Asghar et al., 2018).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews earlier research on the factors being examined in the impact of managing foreign currency risk on financial performance. It provides a critical analysis of the theoretical framework that underpin the study variables, the section on empirical literature review of related literature is presented followed by the conceptual framework and operational framework.

2.2 Theoretical Review

Three theories served as the study's pillars: the new institutional economics theory, the international fisher effect theory, and the theory of rational expectation.

2.2.1 Theory of Rational Expectations

Sargent (1961) introduced the concept of rational expectations and the theory of efficient financial markets. Rational expectations theory suggests that individuals in the economy base their decisions on available market information and learn from past trends. While this theory acknowledges the possibility of occasional incorrect predictions, it also recognizes that individuals can make accurate ones. Consequently, achieving consistent success in speculating on foreign currency markets is deemed implausible.

Erdoğan and Balseven (2006) argued that engaging in destabilizing speculation is impractical and only offers temporary advantages, whereas engaging in stabilizing speculation can be advantageous in achieving balanced prices and combating disruptive speculators. They predicted that exchange rates would eventually find stability and fundamental factors would take effect, aligning with the opinions of other proponents of flexible exchange rates at that time. However, this prediction ultimately turned out to be a substantial error.

According to Taylor (2011) forecasts are unbiased and rely on comprehensive information, indicating that individuals make impartial predictions. Another contentious assumption is that individuals utilize all available information and economic theory when making decisions, implying their understanding of how the economy operates and how government policies impact macroeconomic factors such as the price level, employment levels, and aggregate output (Sargent, 2013). Rational expectations further suggest that the government cannot deceive the public with consistent economic policies. Sargent (2010) argues that while the theory acknowledges that people sometimes make forecasting errors, it contends that these errors are not consistently repeated. Since people base their decisions on available information and past experiences, their choices are generally accurate. Correct decisions result in the same future expectations, while incorrect ones prompt adjustments based on past mistakes (Sargent, 2010).

Considering the extensive and dynamic nature of currency trading, which extends beyond risk-free arbitrage, it becomes evident that open foreign exchange markets can be characterized as highly inefficient markets (Pedersen, 2019). The relevance of this theory to the research lies in its ability to determine whether exchange rates in the Kenyan context can be predicted using relevant information, and how the adverse impact of speculated exchange rates can be minimized. Achieving this objective would lead to a reduction in exchange rate volatility within the economy, ultimately enhancing financial performance of the firms involved in export business such as flower firms in Timau, Meru County.

2.2.2 International Fisher Effect Theory

Irving Fisher, an economist, developed the International Fisher Effect (IFE) theory in 1930 to explain the connection between interest rates, inflation rates, and international exchange rates (Fisher, 1930). This hypothesis is based on the Fisher equation, which states that the real interest rate and the anticipated inflation rate make up a nation's nominal interest rate (Fama, 1975). The IFE hypothesis states that if two nations have different nominal interest rates but the same projected inflation rate, the currency of the nation with the lower nominal interest rate should increase in value in comparison to the currency of the one with the higher nominal interest rate. This holds true even if the actual rate of inflation in both countries is the same. Essentially, the exchange rate should adjust itself to level out the returns on investments denominated in different currencies (Verdelhan, 2018).

This theory postulates that changes in exchange rates over time should reflect differentials in nominal interest rates between countries. For example, if interest rates in the United States were to rise more than those in Canada, the theory suggests that the U.S. dollar should depreciate relative to the Canadian dollar. This depreciation would offset the higher U.S. interest rates and equalize the returns to investors in both countries, all other things being equal (Frankel, 1982). By analyzing the relationships between inflation rates, interest rates, and exchange rates, the IFE theory provides important insights into global finance and economic policy-making. The International Fisher Effect has been widely used in the formulation of monetary and fiscal policies, as well as in the development of investment strategies by financial institutions and multinational corporations (Rogoff, 2002).

However, the applicability of the IFE theory in the real world has been a subject of debate among economists. While the theory is logically consistent and its underlying assumptions

are relatively sound, empirical studies have found mixed evidence to support it. This discrepancy could be due to various factors such as transaction costs, risk premiums, and market imperfections (Meese & Rogoff, 1983).

Predicting future exchange rates between two countries can be accomplished by examining the disparity in their nominal interest rates. Nominal interest rates serve as a reliable indicator for forecasting fluctuations in exchange rates because they encompass inflationary effects. As a result, a nation with higher nominal interest rates is likely to face increased inflation, causing its currency to depreciate relative to that of another country (El Khawaga et al., 2013). According to He et al. (2018), variations in nominal interest rates between a home country and a host country are balanced by changes in exchange rates between their currencies, ensuring equal returns on investments in both countries.

The significance of this theory in relation to the research will be that flower firms in Timau will be able to utilize the existing domestic and international nominal interest rates in order to forecast forthcoming exchange rates. Subsequently, they can execute appropriate strategies for managing foreign exchange risks and minimize potential negative fluctuations in exchange rates that may have a substantial impact on their financial performance. Nevertheless, according to Sieroń, (2019) the IFE theory will be confined to solely considering interest rates and inflation rates as the sole factors influencing currency values, despite the presence of additional variables that also exert an influence on currency prices.

2.2.3 New Institutional Economics Theory

New Institutional Economics theory by Williamson (1998) focuses on the role of institutions in shaping economic behavior and outcomes. The theory is viewed as response

to the neoclassical economic theory, which assumed that individuals were rational actors who always made decisions in their self-interest and that markets were efficient and self-regulating. New institutional economic theory emphasizes that institutions, which can be formal or informal rules, norms, and organizations, play a crucial role in influencing economic behavior. These institutions provide a framework within which economic transactions take place, defining property rights, contract enforcement mechanisms, and the overall structure of markets.

Moreover, the theory establishes a connection between the acquisition of specific assets and security, underscoring the criticality of risk management in agreements between different parties that lack opportunities for diversification. This is true for important financial arrangements or tight partnerships within a supply chain, for example. Senior management often has little leeway when making financial and commercial investment choices in sectors that are regulated. According to Smith and Watts (1992), regulations play a significant role in shaping a company's financial policy. Consequently, when regulated enterprises face heightened scrutiny and reduced contracting costs, their inclination to employ derivatives as a means to hedge company risk diminishes.

According to the argument put forth by Froot et al. (2003), when internal finance costs are lower than external financing costs, enterprises may find that using derivatives is less advantageous. Specifically, corporations may engage in hedging cash flows to evade the need for costly visits to the capital market during cash shortages. Concurrently, there is a positive correlation between derivatives and proxies that represent the firm's investment opportunity set. This principle aligns with the present study as it illustrates how various

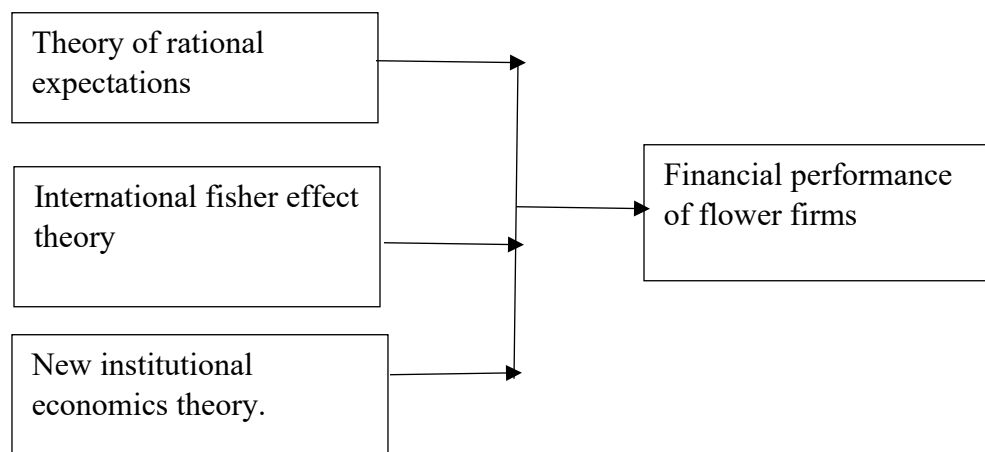
derivatives are utilized to manage financial risk, ultimately maximizing profitability and enhancing performance.

2.2.4 Theoretical Framework

A set of interconnected concepts, principles, and assumptions that guide the understanding, analysis, and interpretation of a particular phenomenon or problem within a specific field of study. In the current study the framework consists of the following theories related to study variables; theory of rational expectations, international fisher effect theory and new institutional economics theory.

Figure 2.1

Theoretical Framework



2.3 Empirical literature review

This section of the chapter will present a systematic review of previous literature related to the study variables.

2.4 Foreign Exchange Transaction Risk Management and Financial Performance

The dynamics of foreign exchange transaction risk management, as outlined by Jeevanandam (2020) encompass the identification, evaluation, and mitigation of risks connected with international business transactions executed in diverse currencies. These processes leverage several tactics and strategies by entities and individuals to shield themselves from detrimental currency exchange rate fluctuations, which can influence the value of their dealings and financial positions.

The impact of financial derivatives used for hedging on the performance and valuation of companies listed on the London Stock Exchange was examined by Ahmed et al. (2014). They looked at data from 2005 to 2012 from the FTSE-All share index, which included 288 non-financial companies. Regression analysis and descriptive statistics were used to process the collected data, and the results showed significant differences in the effectiveness of risk management strategies depending on the type of financial risk and the particular derivatives utilized for hedging. The investigation showed a positive and statistically significant correlation between comprehensive foreign currency risk hedging (including all derivatives) and the financial performance and valuation of the companies. However, this research was confined to managing transaction risk exposure in a distinct economic environment, neglecting translation and economic foreign currency risks (Ahmed et al., 2014).

Additionally, Parlak and Ihan (2016) investigated the scale of open foreign exchange holdings held by Turkish firms engaged in manufacturing and the provision of services. The research, which analyzed 30 companies from the third quarter of 2012 through the second quarter of 2015, found that foreign currency position duration was positively correlated with operational profit. Nevertheless, the ANOVA test demonstrated that

companies with short foreign exchange positions could elevate their overall profitability to match those with long positions during periods of local currency overvaluation, but they suffered severe losses during times of local currency devaluation. The study was centered on manufacturing and service sectors, thus failing to consider flower firms, and it presented a contextual gap, having been conducted in Turkey, whereas the present study is based in Kenya (Parlak & İlhan, 2016).

In a study by Pradita and Geraldina (2019) the potential effect of currency price-related risks on the operational outcomes of banks in Indonesia was explored. The research stretched over duration of 5 years, from 2014 to 2018, utilizing panel data analysis. The impact of transaction risk, as a measure of currency risk, was found to be significant on the financial performance of commercial banks in Indonesia, while translation risk had an insignificant effect. However, the study did not elaborate on how the banking sector manages the transaction risk and was conducted in a different sector from the current study which will be conducted in the agricultural sector focusing on cut flower firms in Kenya (Pradita & Geraldina, 2019).

Mugi and Okiro (2021) conducted a study to examine the impact of different foreign currency risk management strategies on the profitability of commercial banks in Kenya. Covering the period from 2009 to 2014, the research focused on all 43 commercial banks operating in the country and employed a descriptive research design. The findings revealed a significant positive relationship between the rate of return and the use of options, which demonstrated the strongest correlation (Mugi & Okiro, 2021).

Research by Muiru et al. (2018) scrutinized the financial performance of publicly traded firms on the NSE in Kenya, considering strategies to mitigate foreign currency risks. The

research, however, solely focused on publicly traded firms in different sectors from the agricultural sector, which presents a contextual gap that the present study intends to cover. The study also didn't employ return on capital employed as the performance measure which the current study plans to utilize (Muiru et al., 2018).

Maitha (2020) looked into the connection between Kenyan manufacturing companies' financial performance and their handling of foreign exchange risk. The study, which was carried out between 2015 and 2019, concentrated on 85 of the nation's leading industrial companies. The results showed that the adoption of forward exchange contracts, along with leads and lags, was strongly positively correlated with return on assets (ROA). However, the study centered on manufacturing firms, which differ from the cut flower industry, a sector heavily reliant on the export market (Maitha, 2020). These studies demonstrate the importance and impact of foreign exchange risk management, but they also reveal the need for further research in other sectors and economic contexts.

This review of previous studies indicates the need for further research in the context of the flower farming sector, particularly given its heavy reliance on foreign exchange. This is important because the volatility of exchange rates can greatly impact the profitability of these firms, as well as the overall health of the sector and the economies that depend on it. Understanding how these firms manage foreign exchange risk and how effective these strategies are can contribute to the development of better risk management practices and policies, potentially leading to improved financial performance and economic stability.

2.5 Foreign Exchange Economic Risk Management and Financial Performance

As stated by Jeevanandam (2020) the concept of foreign exchange economic risk management embodies the process of pinpointing, appraising, and controlling potential

financial risks linked with oscillations in foreign exchange rates. It encompasses methodologies and tactics employed by corporations and individuals alike to safeguard against detrimental shifts in the rates of currency exchange. These shifts could, in turn, bear negative implications on their overall financial stability (Jeevanandam, 2020).

Turgut (2020) conducted a study in 2020 to examine the impact of economic risk management on the financial performance of South African commercial banks. Inflation and currency rate risk management were two of the independent factors that were analyzed in this research, which covered the period of time from 2003 to 2019 and focused on the four major commercial banks. The measure of profitability used was the return on equity. The study utilized regression analysis to address its research objectives. The results revealed a strong negative correlation between inflation and return on equity, while no significant relationship was observed between the management of foreign exchange economic risk and return on equity. Unlike this research, which concentrated on the banking sector, this research focused on the agricultural sector within the Kenyan context. Ogada and Achoki (2016) assessed the impact that diversity has on the profitability of firms that are merging. The research was conducted using a variety of different methodologies. The study's population consisted of all 51 merged financial service businesses in Kenya, making up the country's total population. A structured data collection template was used to obtain secondary data for the study. The findings indicated that diversification had no significant impact on the profitability of merging firms. While this research focused on the banking sector, the present study examined the cut flower farming industry, performance.

In a study conducted by Olarewaju (2017) the impact of operational diversity on bank performance was investigated. The researcher examined 250 commercial banks across 30 countries from 2006 to 2016. The study's findings demonstrated a significant and positive relationship between diversifying the operations of the Sub-Saharan commercial banks who participated and their profitability. It is crucial to remember that this analysis was carried out in an economic environment distinct from Kenya's and concentrated on the banking sector.

Muriuki (2013) conducted a study to investigate the impact of currency rate fluctuations on the profitability of companies listed on the NSE. Results showed that unrealized gains or losses in foreign currency had an influence on the net income of listed firms, whether reflected in the income statement or owners' equity. Additionally, the study revealed a significant increase in imports and exports among the listed companies.

Moreover, the research established that the utilization of foreign currency affected import expenses, export revenues, as well as accounts payable and receivables, ultimately impacting a company's net revenue. It is important to note that this study focused on the listed companies in Kenya, encompassing various industries and adopting a distinct perspective on financial performance. Specifically, the current study will concentrate solely on the cut flower farming and assess financial performance through changes in return on assets.

2.6 Foreign Exchange Translation Risk Management and Financial Performance

Adams and Verdelhan (2021) define foreign exchange translation risk management as the methodology employed to detect, evaluate, and mitigate potential hazards tied to the conversion of a company's financial records or accounting entries from one currency to

another. This particular risk emerges when a company undertakes business operations across various nations and interacts with multiple currencies. Therefore, managing such risk is essential for any multinational corporation dealing with diverse currency environments.

Adams and Verdelhan (2021) elucidate that translation risk emerges due to variations in the exchange rates between the functional currency, which is the currency employed in the primary operations of a company, and the reporting currency, the currency used to draft its financial statements. As financial statements undergo translation from the functional to the reporting currency, the shifts in exchange rates can potentially influence the reported valuations of assets, liabilities, revenues, expenditures, and equity. Such currency-induced fluctuations may distort financial representations and hence, underpin the need for a robust risk management approach.

Nzioka and Maseki's (2017) study evaluated how currency risk hedging affected the profitability of 49 non-financial companies listed on the NSE. Using multiplex regression analysis, the influence of hedging activities on business performance was assessed. The findings of the study indicated that hedging strategies affected the profitability, sales revenue, cash flow, and liquidity of firms. The performance of internal methods was superior to that of external methods. While the last study looked at non-banking companies listed on the NSE, the present study will concentrate on cut flower farming, a sector that is highly susceptible to currency risk and depends significantly on the export market.

According to research by He et al. (2014), currency instabilities have an impact on the financial performance of US institutions. The study looked at 22 commercial banks'

performance and the effects of foreign exchange fluctuations over a 40-year period. The study's conclusions showed that US banks are particularly susceptible to the risks associated with foreign exchange transactions and that there is a correlation between specific bank performance and the value of the dollar relative to other currency market baskets. The study's conclusions could be applied to modify investment portfolios and/or lower some of the risks related to various foreign exchange changes. The report suggested that in order to prevent future economic downturns, bank executives, regulators, and shareholders should improve their risk management. This study set out to investigate how foreign exchange volatility affected the profitability of the US banking industry. This offers a distinct sector, a different operating climate, and a sole focus on profitability. These gaps serve as the foundation for the current research.

2.7 Foreign Exchange Exposure Net risk management and financial management

Exposure Net risk management pertains to the systematic assessment of how currency rate fluctuations may influence a firm's fiscal performance, cash flows, and balance sheet elements that are denominated in foreign currencies (Jeevanandam, 2020). This process seeks to comprehend the potential financial consequences of changes in exchange rates and implement appropriate strategies to mitigate the associated risks. Ultimately, the goal is to ensure financial stability and maintain the integrity of the firm's economic health despite the inherent uncertainty of foreign currency markets.

The net risk exposure is determined by taking into account all foreign currency assets, liabilities, revenues, and expenses and calculating the overall net position after considering offsetting positions. Net risk management aims to minimize the adverse

effects of exchange rate fluctuations on the company's financial by implementing various strategies and hedging techniques.

Sayed and Gayathri (2023) explain that economic exposure, also referred to as operating exposure, represents the degree to which unforeseen changes in exchange rates influence a company's market value when assessed in a specific currency. This kind of exposure includes indirect effects on a company's competitive position and the present value of its future cash flows, in addition to the direct effects of currency changes on transactions in foreign currencies. Another dimension of economic exposure, balance sheet exposure, reflects the potential effects of exchange rate variations on a firm's financial statements. For example, changes in currency rates can alter the reported values of assets and liabilities that are denominated in foreign currencies. This includes diverse items like accounts payable and receivable, inventory, foreign-currency denominated loans, and investments held in foreign institutions. Essentially, variations in foreign currency exchange rates can have extensive implications on the organization's comprehensive financial position. This includes operating cash flows, income statement items, competitive standing, market share, and even stock prices. Consequently, effectively managing economic exposure is integral to ensuring the financial stability of an organization that operates within the global market.

The implications of economic exposure extend beyond the immediate effects of currency fluctuations on foreign currency transactions. Economic exposure also considers the indirect influences of exchange rate changes on competitive dynamics, which could lead to shifts in sales prices, volumes, and input costs (Lily et al., 2018). These impacts are not only confined to organizations with foreign currency transactions, but they can also extend

to purely domestic firms that face competition from foreign-based companies or rely on international suppliers. As per Wahab et al. (2022) the management of economic exposure seeks to safeguard or maximize future operational cash flows, thereby enhancing the company's overall value.

It is widely acknowledged that various risks, including financial risks, are inherent to the operation of organizations, regardless of size. As such, utilizing risk management tools, including derivative contracts and securities, is a crucial strategic initiative (Asghar et al., 2018). The efficiency of risk management practices is posited to have a significant influence on organizational performance, particularly for financial institutions (Erdogan, 2016). Moreover, Anisak and Mohamad (2020) corroborate the relevance of risk management for enhancing firms' financial performance.

The complexities of foreign exchange risk, characterized by unpredictable currency rate fluctuations, underscore the importance of precise risk measurement in devising effective management strategies (Hong et al., 2018). In this context, the use of foreign currency derivatives has been positively associated with the value of non-financial firms (Bashir et al., 2013). Further, Nova et al. (2015) suggested that firms using derivatives for hedging purposes exhibited superior performance compared to those that did not.

The impact of risk management on firm value, however, appears to be industry-specific. Jin and Jorion (2016) did not observe a significant impact of risk management on the market value of oil industry firms; whereas Dionne and Triki (2013) reported that risk management significantly bolstered the returns on assets in the gold mining industry. Rossi (2009) identified a reduction in foreign exchange risk exposure among Brazilian

firms following a switch from fixed to flexible exchange rate regimes, credited to the increased adoption of currency derivatives for risk management.

A meta-analysis conducted by Vengesai et al. (2020) provided a broader perspective, revealing inconsistent results regarding the significance of factors such as taxes, managers' risk aversion, bankruptcy costs, and financial market imperfections in influencing the utilization of derivatives. The study, however, affirmed the role of scale economies and the volatility of foreign currency cash flows in determining derivative usage, with larger firms, exporters, and companies with overseas subsidiaries found to be more inclined towards derivative employment.

Further insights from a study by Ahmed and Huo (2021) indicated the profound impact of the banking sector on the volatility and prices of foreign exchange and aggregate stock markets, particularly during periods of financial crises. This underscores the pivotal role banks play as potential sources of contagion. Notably, none of these studies specifically explored the agricultural sector or, more specifically, the cut flower farming industry, which underscores a gap in current research that the present study aims to address.

2.8 Literature Review Summary of and Gaps

This chapter explores earlier studies on foreign exchange risk management strategies and how they affect financial results. Its main objective is to investigate pertinent theories that support the variables in the study and offer a framework for comprehending the dynamics of foreign exchange risk management. The theories examined include the Theory of Rational Expectations, the International Fisher Effect Theory, and the New Institutional Economics Theory. These theoretical perspectives are considered essential in analyzing the relationship between foreign exchange transactions, economic factors, translation and

exposure risk management, and monetary success of flower firms in Tumau, Meru County.

The review highlights that risk practices, such as hedging, forward contracts, and diversification, positively impact financial performance by mitigating risks associated with exchange rate volatility. Effective management of these risks enables firms to stabilize their cash flows, protect profit margins, and enhance competitiveness in both local and international markets. The theories explored in this chapter offer insights into the complex interplay between economic variables and financial outcomes, providing a foundation for understanding the behavior of firms operating in export-driven industries like cut flower farming.

This chapter also offers a thorough review of previous research, showing a favorable relationship between enhanced financial performance and foreign exchange risk management techniques. However, these studies also identify several critical gaps that warrant further investigation. Contextual gaps arise because most research has focused on industries such as banking or manufacturing, with limited attention to agriculture and export-driven sectors like flower farming. Theoretical gaps exist where certain studies fail to comprehensively integrate key economic theories into their analyses. Methodological gaps are evident in the predominance of quantitative approaches, often lacking qualitative insights that could enrich the findings. Conceptual gaps highlight the need for a clearer framework to connect specific foreign exchange risk management practices with financial performance metrics.

The current study aims to address these gaps by focusing on the cut flower farming industry in Tumau, Meru County, a sector heavily reliant on international markets and

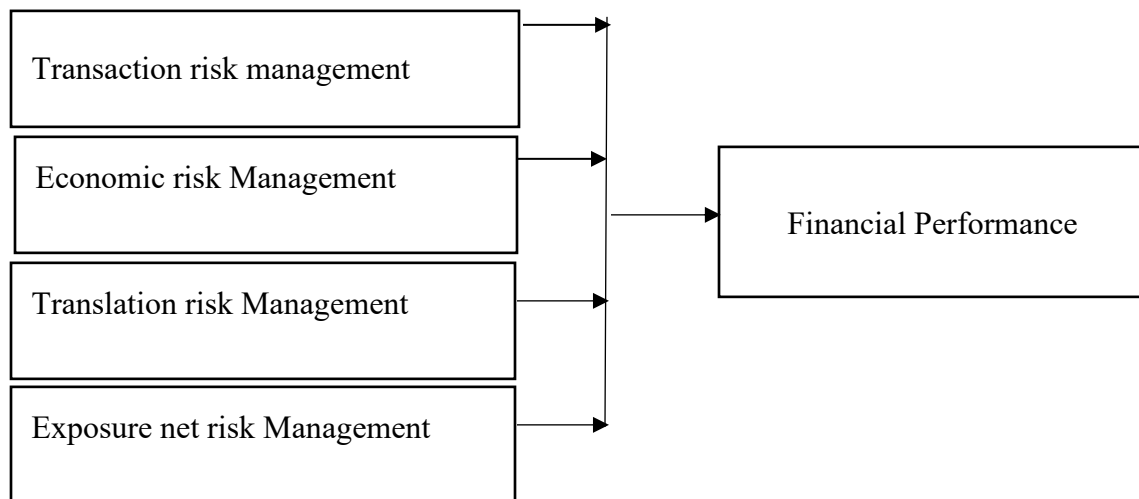
susceptible to foreign exchange fluctuations. In order to contribute to a more sophisticated understanding of how foreign currency risk management strategies impact financial performance in agricultural firms, this research aims to close these contextual, theoretical, methodological, and conceptual gaps. The findings are expected to offer practical implications for policy-making, risk management strategies, and sustainable business practices in similar export-driven industries.

2.10 Conceptual Framework

The link between the independent and dependent variables is described in the conceptual framework. The dependent variable in this study is financial performance, while the independent variables comprise foreign exchange transactions, economic risk management, translation risk management, and exposure net risk management, as illustrated below.

Figure 2.2

Conceptual framework



Independent variables

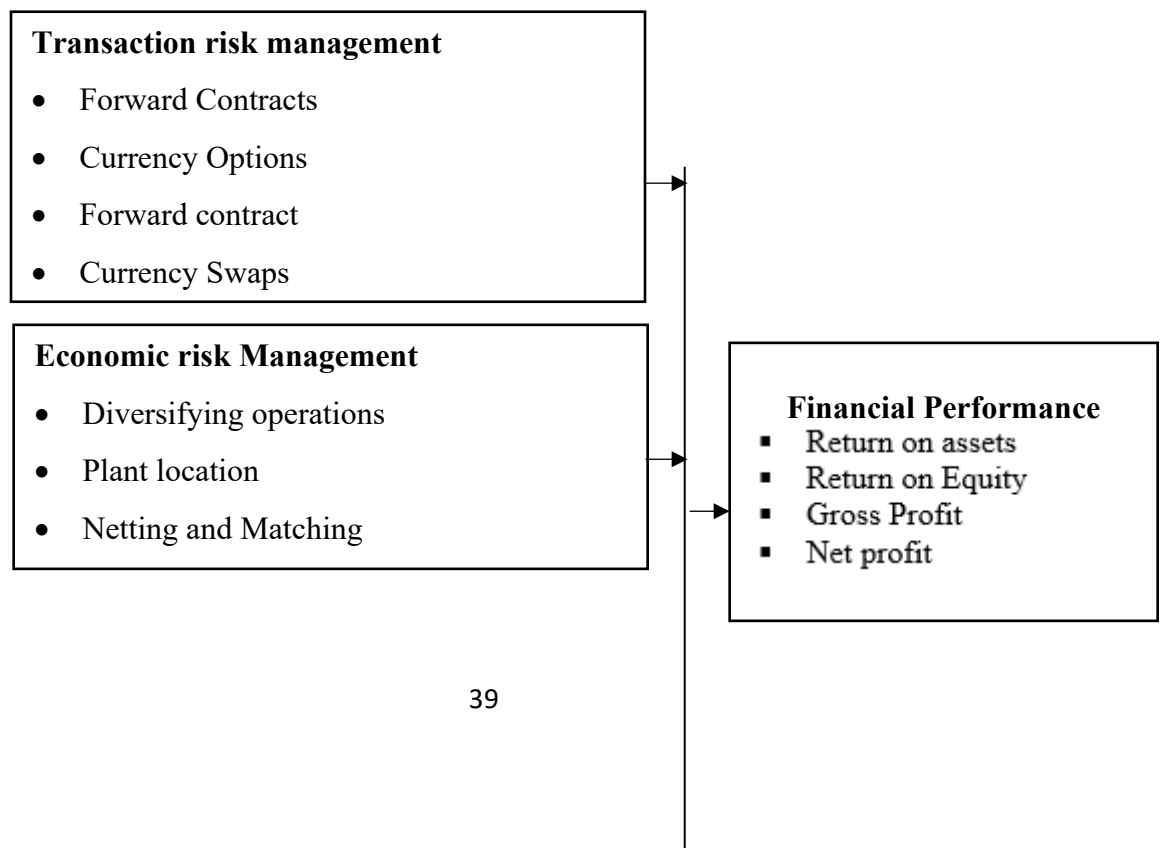
Dependent variable

Source: Researcher, 2024

2.11 Operational Framework

Figure 2.3

Operational Framework



Translation risk Management

- Currency swap
- Hedging
- Forecasting and Planning



Exposure net risk Management

- Natural Hedging
- Netting
- Leading and Lagging



Independent Variables

Source: Researcher, (2025)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter included a thorough rundown of the research design, target population, sampling strategy, and data collection methods within the research methodology. It also talked about doing a pilot study to assess the validity and dependability of the chosen research tools. The steps involved in gathering data were explained, including how to conduct surveys or interviews and how to enter data. The methods for data analysis that were employed to interpret the gathered information were also covered in this chapter. Finally, it touched upon ethical considerations to ensure the study respected the rights, integrity, and privacy of the participants and upheld the principles of honesty and transparency.

3.2 Research Design

According to Creswell (2017), research designs could be seen as comprehensive strategies that guided the entire research process, from overarching assumptions to specific methods of data collection and analysis. In essence, a research design provided a blueprint or road map that established a framework for choosing appropriate data collection techniques and determining the analytical methods to be employed (Bryman and Bell, 2007). This study adopted an explanatory research design, which provided a comprehensive understanding of the nature, timing, and mechanisms of the phenomena under investigation.

The goal of the explanatory research design was to identify or characterize a topic by developing a profile of individuals, events, or a collection of issues. Meanwhile, a cross-sectional study involved a single encounter (snapshot) with the units under investigation

(Kumar, 2018). Because it made it possible to examine the links between the study variables at the same time, the explanatory research design was adopted. Horticultural businesses were analyzed using a cross-sectional approach to assess the connection between foreign currency risk management and financial performance.

3.3 Location of the Study

Meru County is well known throughout the world as one of the top producers and suppliers of premium flowers. The favorable climate and temperature conditions, particularly on the leeward side of Mount Kenya and in the Timau region, create an ideal environment for flower cultivation, harvesting, and distribution. These areas are internationally recognized for producing unique and prestigious flower varieties, including red roses, florinca, scented garden roses, alstroemeria, anais, red Naomi roses, sweetness roses, air force, cape red, scenta, ice bear, and Karina.

As defined by Tatman (2021) the location of a study represents the physical environment in which the researcher conducts their investigations. The present study was carried out in Timau, Meru County focusing on the five dominant flower firms namely P.J Dave Rising Sun Timau Farm, Batian Flowers, Upendo Flowers, Tambuziand Uhuru flowers. The rationale behind selecting this region was based on its dominance in the cut flower industry. Moreover, the choice of flower firms in Timau County was primarily due to its substantial reliance on the export market for their produce, making it a fitting candidate for this study on foreign exchange risk management.

3.4 TargetPopulation

The target population in research encompasses all units in the field of investigation (Kothari, 2004). This study targeted a population of 158 management staff from the five dominant flower firms namely P.J Dave Rising Sun Timau Farm, Batian Flowers, Upendo Flowers, Tambuzi and Uhuru flowers. According to Fresh Produce Exporters Association of Kenya (FPEAK), The choice of the management team was informed by the fact that they are assumed to be directly involved in the production and sales planning of their produce.

Table 3.1

Target Population

No	Flower Firm	Managerial Staff (Accountants, Export managers and Operational Managers)
1	P.J Dave Rising Sun	30
2	Batian Flowers	25
3	Upendo Flowers	20
4	Tambuzi	20
5	Uhuru flowers	63
	Total	158

3.5 Sampling Technique

This is an approach used in research to select a subset of individuals from a larger population for participation in a study. This technique is usually applied in situations where the overall population is vast or when there are challenges accessing the entirety of the population (Kothari, 2004). However, in the context of this current study, given the small size of the population and its easy accessibility, there was no need for sampling. Instead, a census approach was employed, wherein every individual within the population was included in the research.

The Population Census offers a unique opportunity to examine small and specific population groups as well as gather information about small geographical areas. The rationale behind using the census approach is supported by Orodho (2009) who states that collecting data through a census helps in obtaining unbiased data that represents the opinions of all individuals in the study population regarding a research issue. Additionally, Field (2006) argues that census results are more likely to be accurate, reliable, and representative compared to results obtained from a sample of the population, thereby facilitating the generalization of research findings. Conducting a census ensures a precise measurement of the population without any sampling errors, enabling the collection of comprehensive information about the research problem within the population (Sekaran & Bougie, 2010).

3.6 Data Collection Instruments

The data collecting stage specify the kind of data to be gathered, whether primary or secondary, the tool to be utilized for gathering data, and the time period for data collection. Data for the study was gathered using primary collecting tools. The questionnaires were administered to the firm management team who will respond to the questions. This study

mainly employed questionnaires as the main technique for primary data collection in order to learn more about the risk management practices of the prominent flower's enterprises. A questionnaire is a form with written questions that is given to participants.

3.6.1 Questionnaires

To collect quantitative data from participants, the study used closed-ended questionnaires (Appendix II). The questionnaires were split into two sections: Section II covered financial performance and risk management procedures, while Section I concentrated on background data. The five questions in the remaining sections, except the background information section, were arranged based on the study variables and were taken from the research gaps noted in Chapter Two. To ensure consistency, the questionnaires employed an ordinal Likert scale ranging from 1 to 5, where 1 represented "strongly disagree," 2 "disagree," 3 "neutral," 4 "agree," and 5 "strongly agree."

3.6.2 Secondary Data

The study examined secondary data obtained from financial records of top Timau flower companies from June 2018 to December 2022, including audited balance sheets and statements of affairs. Important financial measures like return on equity (ROE), gross profit, net profit, and return on assets (ROA) were all covered in these reports.

3.7 Piloting of Research Instruments

In order to determine how foreign exchange risk management affects the financial performance of top flower companies in Timau, Kenya, the study aims to evaluate and

validate the usefulness of its instruments. To achieve this, a pilot study was conducted at AAA Roses Ltd chui farm in Timau which share the same characteristics with the other flower firms in the region. The pilot study involved six respondents who were randomly selected from the management of AAA Roses forming 10% of the sample size (Mugenda & Mugenda, 2003). The pretest results were included in the final analysis.

3.7.1 Reliability

To make sure that the data gathered during the pilot phase accurately represents the consistency of the measurement instruments, the study will perform a reliability test (Cooper & Schindler, 2018). Reliability will be evaluated using the Cronbach Alpha Coefficient, analyzed through SPSS, which utilizes a scaling method. To ensure the data's reliability, it is necessary for the measurement tools to have coefficients within the range of 0.7 to 1 (Cooper & Schindler, 2018). If the coefficients fall below this range, it would indicate that the instruments are not dependable and would require further adjustments to suit the needs of the study.

3.7.2 Validity

Ko et al. (2017) define validity as a research instrument's capacity to precisely assess and achieve its intended goal. Face, content, and concept validity are the three types of validity that are assessed in this study. Face validity was examined by analyzing the influence of cash management, debtors' management, short-term securities management, and inventory management on financial performance as separate components. Content validity was ensured by designing questions specifically aligned with these areas, ensuring they accurately represented the indicators of each variable. Construct validity was assessed by

comparing the study's findings with results from prior research to identify any inconsistencies. In cases where discrepancies were identified, the study sought to provide a rationale for the differences.

3.8 Data Collection Procedure

Data collection commenced after obtaining the required authorizations. The initial step involved securing approval from the Directorate of Postgraduate Studies at Kenya Methodist University. This approval was instrumental in the subsequent application for a research permit from the National Council for Science, Technology, and Innovation (NACOSTI).

Following this, the researcher presented the prepared questionnaires, which served as the data collection tool, to the selected participants. Before their inclusion in the study, an appointment was set up with the respondents, during which an introductory letter was presented to them. This letter detailed the research procedure and reassured the participants about the confidentiality and anonymity of their responses, aiming to ensure their comfort and safety during the study. The units of observation in the research were the finance accountants, export and operational managers responsible for foreign currency transactions for the company.

These respondent categories were believed to possess relevant and accurate information on the foreign exchange transactions and profitability of the dominant flower firms in Timau Meru County. Data on exchange rates were also gathered from the CBK website to analyze the changes over the years under study.

3.9 Data Analysis and Presentation

During the data analysis phase, various procedures were undertaken to prepare the collected data for examination. This involved cleaning, coding, processing, and tabulating the data. Once prepared, the data was entered into SPSS version 28 software for detailed analysis. The investigation of the data employed both inferential and descriptive statistical methods. The data was summarized and presented using descriptive statistics, such as frequencies, means, percentages, and standard deviations. This method provided a thorough and understandable depiction of the data gathered.

Based on the sample data, inferential statistics were used to make inferences about the broader population. To examine the link between the independent and dependent variables, multiple linear regression analysis was employed. Additionally, diagnostic tests were performed to verify the reliability and suitability of the data. These tests, which assessed normality, linearity, multicollinearity, and correlation, ensured that the data met the prerequisites for the chosen statistical methods.

Inferential statistics, including model summaries, ANOVA, and regression coefficients, were employed to determine the extent to which the independent variables influenced the dependent variable. These analyses were also utilized to define the regression model and its associated coefficients, as well as to assess the study's assumptions. This thorough analytical approach ensured the extraction of valid and insightful conclusions from the data collected.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y is the financial performance through return on capital employed

X1 is management of foreign exchange transaction risk

X2 is management of foreign exchange economic risk

X3 is management of foreign exchange translation risk

X4 is management of foreign exchange exposure net risk

b is the coefficient for the variables X1 X2, X3 and X4

β_0 is constant

ε is error term

From the above regression equation, a significance value of 5 percent i.e. 0.05 was applied to assess the impact of the predictor variables on change in return on capital employed.

3.10 Ethical Considerations

The study prioritized maintaining ethical standards throughout the data collection process. Necessary approvals, including authorization from KeMU and a research permit from NACOSTI, were secured through formal introduction letters and official documentation. Participants were fully informed about the purpose of the study, and their consent was obtained prior to their involvement in the data collection process. In order to preserve privacy, neither the questionnaires nor the interviews requested personal information from respondents, including names, phone numbers, work codes, or email addresses. Confidentiality was maintained, with completed questionnaires and interview responses securely stored in a tamper-proof location. Additionally, the study ensured the recruitment of research assistants who upheld high moral standards and demonstrated courteous communication. The findings of the study were reported accurately, reflecting the information provided. The results were not presented in a way that would mislead readers,

take them out of context, exaggerate the findings, or disproportionately emphasize certain aspects of the study while neglecting the overall context.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter provided a summary of the data analysis findings, evaluating the impact of foreign exchange risk management on the financial performance of flower firms in Timau, Meru County, Kenya. It outlined the participation level and demographic details, then explored the effects of handling risks related to foreign currency transactions, economic factors, accounting translations and exposure net management on the financial performance of the floriculture firms. Finally, the outcomes of the study Inferential findings investigating relationship of variables will be outline in this chapter.

4.2 Response Rate

The study administered questionnaires to 158 Managerial Staff who included Accountants, Export managers and Operational Managers from the selected flower firms in Timau Meru county, Kenya. The response rate is presented as below.

Table 4.1

Response Rate

	Responses	Frequency	Percent
Valid	Returned	140	88.6
	Unreturned	18	11.4
	Total	158	100.0

The results of the research showed that a significant majority, 88.6%, of those surveyed consented to join the study, whereas a small portion, 11.4%, opted not to participate. The rate of participation was found to be sufficient for conducting the analysis. It is acknowledged that a response rate exceeding 50% is generally deemed adequate for comprehensive analysis. Walliman (2021) posited that a 50% response rate is considered acceptable, but a rate above 70% is regarded as exemplary. Consequently, the remarkably high response rate of 98.6% in the current study is viewed as exceptionally positive. The notable response rate could be directly attributed to the variety of data collection techniques employed. These methods encompassed advanced notification to potential respondents, fostering a spirit of voluntary participation, facilitating the process by distributing and retrieving the questionnaires to afford ample time for completion, ensuring participants' confidentiality and anonymity, and conducting follow-up calls to resolve any subsequent queries from respondents.

4.3 Reliability Testing

The test-retest approach is frequently used to evaluate reliability, which Shanghverzy (2003) defines as the stability of measurements made by a research instrument. This concept highlights the link between the construct being measured and the research (Mugenda & Mugenda, 2003). Essentially, it emphasizes the reliability and uniformity of data collected by repeatedly using a research tool or method under similar conditions. The Cronbach-Alpha method is utilized for determining reliability, which yields values ranging from 0 to 1, with values of 0.7 and higher being deemed acceptable. Table 4.2 documents the reliability outcomes.

Table 4.2

Reliability Statistics

	Variables	Cronbach's Alpha	Comment
Valid	Transaction Risk Management	0.833	Acceptable
	Economic Risk Management	0.808	Acceptable
	Translation Risk Management	0.790	Acceptable
	Exposure Net Management	0.820	Acceptable
	Financial Performance	0.742	Acceptable

The Cronbach's Alpha coefficient values for transaction, economic, translation risk management Exposure net management and financial performance results all exceeded 0.7. Therefore, the results demonstrate questionnaire dependability, indicating that the study questionnaire had the capacity to consistently measure what it was designed to evaluate.

4.4 Demographic Response

The study sought to established respondent's educational level, duration in the export business and the currency of invoice.

4.4.1 Level of Education

Table 4.3 shows outcome on education level.

Table 4.3

Level of Education

		Frequency	Percent
Valid	Secondary	18	12.9
	Middle Level College	80	57.1
	University	42	30.0
	Total	140	100.0

Table 4.3 indicated that 57.1% (80) of the workers had middle level college certificate as their highest academic qualification while 30.0% (42) had university degree in various fields, and 12.9% (18) completed secondary education. These figures suggest that floricultural firms in Timau prioritize employing a workforce that is both skilled and competent, as evidenced by the fact that cumulatively 57.1% of the respondents had attained middle level college and above.

4.4.2 Duration in the Export business

Table 4.4 shows outcomes on duration in export business.

Table 4.4

Duration in the Export

		Frequency	Percent
Valid	Below 2 Years	16	11.4
	2-5 Years	48	34.3
	6-10 Years	58	41.4
	Above 10 Years	18	12.9
	Total	140	100.0

Table 4.4 indicates that 41.3% (58) of the participants surveyed have been in business for a period between 6 to 10 years, forty-eight (34.3%) of the participants reported being in the export business for a period of 2 to 5 years, and 12.9% (18) indicated to have been in the export sector for over 10 years. The findings also indicated that 11.4% of the respondents were in the export business for a period below 2 years. These statistics suggest that respondents in the floriculture sector have had ample time to develop and apply strategies to handle the risks associated with foreign exchange transactions.

Respondents were asked to indicate whether their firm uses any formal foreign currency risk management programme.

Table 4.5**Use of Foreign Currency Risk Management Programme**

		Frequency	Percent
Valid	Yes	103	73.6
	No	37	26.4
Total		140	100.0

Table 4.5 showed how often flower companies have adopted risk management policies. According to the results, 73.6% (103) of the participants confirmed the presence of a risk management policy in their companies, whereas 26.4% (37) reported the absence of such policies in their firms. The data suggests that a significant majority of flower companies prioritize risk management and have formal policies in place to address potential risks. This reflects a conscientious approach towards safeguarding business operations and assets. However, the fact that over a quarter of the respondents' firms lack a risk management policy highlights an area of concern and suggests that there is still room for improvement in the industry's overall risk management practices.

Further respondents were requested to indicate the risk management methods used by their firms. The results were as indicated in Table 4.6.

Table 4.6**Risk Management Policies**

			Frequency	Percent
Valid	Hedging	with	22	15.7
	Derivatives			
	Leading and Lagging		38	27.1
	Payment Netting		51	36.4
	Prepayment		29	20.7
	Total		140	100.0

Table 4.6 illustrates that 36.4% (51) of the surveyed firms, employ payment netting as a strategy to mitigate foreign exchange risks. Additionally, 24.1% (38) of respondents utilize leading and lagging techniques, and 20.7% (29) rely on prepayment methods. Meanwhile, 15.7% (22) of the firms adopt hedging with derivatives to protect against foreign exchange volatility. This distribution of strategies highlights a preference for payment netting as the primary method of managing foreign exchange risks among the firms surveyed. It suggests a need for further exploration into the effectiveness and efficiency of payment netting compared to other methods.

4.5 Descriptive Analysis

The study sought statements regarding transaction, economic, translation risk management, exposure net management and financial performance.

4.5.1 Currency of Invoice

The currency of invoicing used by the flower firms was investigated to determine how much these firms engaged in dealings in different currencies.

Table 4.7**Currency of Invoice**

		Frequency	Percent
Valid	Dollar	44	31.4
	Euro	88	62.9
	GB Pound	8	5.7
	Total	140	100.0

Table 4.7 indicates that focus on the invoicing currency preferences among horticultural companies, reveal quite insightful implications for the industry's geographical market orientations and risk management strategies. The fact that a substantial 62.5% of these companies prefer the Euro for invoicing, out of the data sampled, indicates a strong leaning towards the European market. This preference likely stems from the Euro's perceived stability and the ease of doing business within a Euro-dominated region, minimizing currency exchange risks and transaction costs for companies heavily engaged in exporting to European countries.

On the other hand, the preference for the Dollar by 31.3% of the companies reflects a significant portion of the horticultural export market's orientation towards the United States or other Dollar-using regions. Lastly, the 6.3% preference for the Great Britain Pound, though comparatively small, highlights the UK's specific appeal as a trading partner for a subset of these exporters. Given the UK's departure from the EU, companies

favoring the Pound may be navigating separate trade dynamics, or they potentially view the GBP as a stable or profitable currency for their transactions.

This distribution pattern suggests that a significant number of exporters are conducting their business in Europe, where the Euro is preferred due to its stability.

4.5.2 Financial Performance in the Floriculture Industry

The research focused on examining the earnings before interest and taxes of the flower firms that participated in the study. Average values for these companies were calculated. The results of the study were as indicated in Table 4.8.

Table 4.8

Profit before Interest and Tax

	Year	N	Mean P.B.I. T
Valid	2020	140	11,188,270.83
	2021	140	11,723,020.61
	2022	140	12,251,914.58

Table 4.8 illustrates the average earnings before taxes and interest (EBT) for flower and horticulture companies during the years 2020, 2021, and 2022. The results show an average EBT of KSh 11,188,271, KSh 11,723,021, and KSh 12,251,915 for each respective year. This data indicates a progressive increase in earnings before interest and taxes across the three-year span. The information from Table 4.8 suggests a positive trend in the financial performance of flower and horticulture companies over the three years from 2020 to 2022. Specifically, the average earnings before taxes and interest (EBT) for

these companies have seen a consistent yearly increase, indicating a financially healthy and growing industry sector during this period.

Table 4.9

Total Assets

	Year	N	Mean Total Assets
Valid	2020	140	31,469,064
	2021	140	30,721,741
	2022	140	31,525,632

The average total assets held by floral businesses in 2020, 2021, and 2022 are summarized in Table 4.9. According to the data, the average assets were Sh. 31,469,064 in 2020, Sh. 30,721,741 in 2021, and Sh. 31,525,632 in 2022. This pattern indicates a reduction in the total assets during 2021 followed by a rebound in 2022, possibly due to the revaluation of assets denominated in foreign currencies, such as accounts receivable.

Table 4.10

Current Liabilities

	Year	N	Mean Current Liabilities
Valid	2020	140	4,245,473
	2021	140	4,862,691
	2022	140	4,651,339

Table 4.10 presents the average total debts for flower companies over the years 2020, 2021, and 2022. The data reveal that the average total debts were Sh.4,245,473 in 2020, increased to Sh.4,862,691 in 2021, and then slightly dropped to Sh.4,651,339 in 2022. This trend suggests an initial rise in liabilities, followed by a reduction in the subsequent year, potentially due to changes in the foreign exchange rates impacting the valuation of liabilities in foreign currency, such as overseas loans and payables.

Table 4.11

Return on Capital Employed (R.O.C.E)

		N	Mean return on capital employed %	
				change
Valid	2020	140	0.4109	-
	2021	140	0.4533	+10.32%
	2022	140	0.4559	+0.74%

Table 4.11 summarizes the average Return on Capital Employed (ROCE) and the percentage changes for flower firms in Timau in Meru County over the years 2020, 2021, and 2022. The capital employed, which is determined by subtracting current liabilities from total assets, was divided by the profit before interest and taxes (PBIT) to determine the ROCE. The results show average ROCEs of 0.4109 in 2020, 0.4533 in 2021, and 0.4559 in 2022. There was an increase of about 10.32% in 2021 from 2020, followed by a slight rise of 0.74% in 2022 compared to 2021.

4.5.3 Transaction Risk Management

The goal of the study was to ascertain how the financial performance of the leading flower companies in Timau Meru County, Kenya, was impacted by the risk management of foreign exchange transactions. The participants gave their opinions regarding statements on foreign exchange transaction risk management in relation to financial performance.

Table 4.12

Analysis of Transaction Risk Management

Statements	N	Min	Max	Mean	Std. Deviation
The organization engages in future contract usage	140	1.00	5.00	3.69	1.201
The organization engages in forward contract usage to manage transaction risk	140	1.00	5.00	3.54	0.925
The organization likes transacting mostly in local currency to manage transaction risk	140	1.00	5.00	3.12	1.231
The outflows in its transaction	140	1.00	5.00	2.86	1.133
Valid N (listwise)	140				

Table 4.12 reveal that the surveyed individuals concur with the notion that their companies actively participate in future contracts, evidenced by an average score of 3.69 along with a standard deviation of 1.201. Additionally, there is a consensus among participants that forward contracts are utilized by firms as a tool for managing transaction risk, as reflected by an average score of 3.54 and a relatively low standard deviation of 0.925, which

suggests a limited variation in responses. Conversely, the respondents expressed a neutral stance regarding the preference for conducting transactions primarily in the local currency as a risk management strategy, as well as the approach of matching foreign currency receipts with expenditures, with mean scores of 3.2 and 2.86, respectively.

These findings underscore the prevalent use of future and forward contracts among firms as strategic measures for mitigating transaction risk. This practice is indicative of companies leveraging financial instruments to safeguard against the unpredictability of financial markets. A notable observation is the level of consensus among respondents on the utilization of forward contracts, suggesting a possibly widespread acknowledgment of their benefit in transaction risk management. The utilization of future and forward contracts as risk management tools aligns with the findings by Mugi and Okiro (2021), which asserts that transaction risk management policies are essential in stabilizing financial operations amid market volatilities. This agreement between the current study findings and existing literature affirms the critical role of futures and forwards in contemporary risk management strategies within firms.

4.5.4 Economic Risk Management

The study also aimed to examine the impact of managing economic risk related to foreign exchange on the financial performance of the leading flower companies in Timau Meru County, Kenya. The participants gave their opinions regarding statements on foreign exchange economic risk management in relation to financial performance.

Table 4.13**Analysis of Economic Risk Management**

Statements	N	Min	Max	Mean	Std. Deviation
The firm engages in operational diversity to manage its foreign risk exposure	140	1.00	5.00	3.93	1.147
The firm has plants in various locations to diversify its operations geographically	140	1.00	5.00	3.71	1.124
The firm builds protection into its commercial relationship and contracts to manage foreign exchange risk	140	1.00	5.00	3.74	1.201
The firm maintains bank accounts in the foreign currencies that usually transacts in	140	1.00	5.00	3.57	1.201
Valid N (listwise)	140				

With a mean score of 3.93 and a standard deviation of 1.147, the results in Table 4.13 show that respondents agreed with the statement that using operational diversity is effective in the management of foreign risk exposure among flower firms. The relatively high mean score of 3.93 indicates a consensus among respondents that operational diversity plays a significant role in mitigating foreign risk exposure. This perception is supported by Jeevanandam (2020) who argue that operational diversity can enhance a firm's agility and resilience against the volatilities of international markets.

Respondents agreed with the statement that corporations operate plants in multiple locations to diversify their activities regionally, with a mean score of 3.71 and a standard deviation of 1.124. These finding aligns with the suggestion by Turgut (2020) that geographical diversification is an essential strategy for reducing exposure to country-specific risks. By having plants in various locations, firms can spread their risk and potentially offset losses in one locale with gains in another.

The agreement on building protection into commercial relationships and contracts, indicated by a mean of 3.74, reflects a strategic approach towards foreign exchange risk management. Ogada and Achoki (2016) emphasizes that contractual safeguards, such as currency clauses and hedging agreements, provide a means to anticipate and manage potential forex fluctuations, reinforcing these finding's relevance. the positive response to maintaining bank accounts in foreign currencies, with a mean score of 3.57, suggests a tactical approach to handling transactional exposures. This supports the notion by Muriuki (2013) that maintaining foreign currency accounts can offer a buffer against currency fluctuations, allowing firms to optimize their currency conversion processes and minimize transaction costs.

The findings from the analysis demonstrate that flower firms actively employ a variety of strategies to manage foreign risk exposure effectively. The various strategies discussed include operational diversity, geographical diversification of operations, incorporating protections within commercial relationships and contracts, and maintaining bank accounts in foreign currencies.

4.5.5 Translation Risk Management

The study also aimed to examine the impact of managing foreign exchange translation risk on the financial performance of leading flower businesses in Timau Meru County, Kenya. The participants gave their opinions regarding statements on translation risk management in relation to financial performance.

Table 4.14

Analysis of Translation Risk Management

Statements	N	Min	Max	Mean	Std. Deviation
The firm uses the temporal method of converting its currency to the currency of its parent	140	1.00	5.00	3.77	1.066
The firm reports its foreign currency transactions using the current rate method	140	1.00	5.00	3.86	1.072
The firm simply uses the translation exposure because it accepts it as part of their investment	140	1.00	5.00	2.92	1.025
Valid N (listwise)	140				

Table 4.14 indicate that the majority of participants concurred with the assertion that their organizations employ the temporal method for currency conversion into the parent company's currency, as evidenced by a mean score of 3.77 and a standard deviation of

1.066. Furthermore, it was decided that these companies would report foreign exchange transactions using the current rate technique, as evidenced by the mean score of 3.86 and the standard deviation of 1.072. Nonetheless, the replies were neutral, with a standard deviation of 1.025 and a mean score of 2.92, indicating that respondents were not sure if they should include translation exposure in their investing strategy.

These findings underscore a preference within these firms for employing both the temporal and current rate methods for currency conversion and transaction reporting, suggesting a strategic approach to managing currency risk and the complexities of international operations. These results are similar to those of a study by Nzioka and Maseki (2017) which highlighted the significance of these currency conversion techniques in the global financial management practices of multinational companies. Similarly, Adams and Verdelhan (2021) emphasized how these methods serve as critical components in international financial reporting standards, facilitating more accurate and transparent financial disclosures about foreign operations.

4.5.6 Exposure Netting Risk Management

The research analyzed the effect of Exposure Netting risk management on financial performance of dominant flower firms in Timau Meru County, Kenya. The participants gave their opinions regarding statements on exposure netting risk management in relation to financial performance.

Table 4.15**Analysis of Exposure Netting risk management**

Statements	N	Min	Max	Mean	Std. Deviation
Effective exposure net risk management positively impacts financial performance	140	1.00	5.00	3.86	1.005
The firm uses risk hedging instruments to minimize the impact of exposure net	140	1.00	5.00	3.95	0.978
Organization integrates exposure net risk management into overall strategic decision-making processes	140	1.00	5.00	3.71	0.991
Valid N (listwise)	140				

The data from Table 4.15 strongly suggests that effective exposure net risk management significantly enhances a firm's financial performance (mean of 3.86 and standard deviation of 1.005). A mean of 3.95 and a standard deviation of 0.978 also show that businesses are actively using risk hedging tools to lessen the impact of exposure net. Furthermore, the findings reveal that firms are integrating exposure net risk management into their overall strategic decision-making processes, as strengthened by a mean of 3.71 and a standard deviation of 0.991. These results underscore the critical importance of robust risk management strategies in positively influencing financial performance and strategic decision-making, aligning with the existing body of literature on this subject.

Sayed and Gayathri (2023) in understanding how firms in the volatile gold mining industry manage financial risk through hedging instruments. The study findings provide evidence of the positive correlation between effective risk management practices, including the use of hedging instruments, and the firm's financial performance, which aligns with the current study's observations on risk hedging instruments.

4.6 Inferential Analysis

4.6.1 Correlation Analysis

The analysis on correlation aimed to investigate the relationship between independent variables (transaction risk mgt, economic risk mgt, translation risk mgt and exposure net risk mgt) and the dependent variable (financial performance). Pearson's correlation coefficient (r) was used to determine the direction and strength of the association. A correlation coefficient (r) of +0.7 indicates a very strong association, +0.5 to 0.69 signifies a strong association, 0.3 to 0.49 reflects a moderate association, and less than 0.29 indicates a weak association. A correlation coefficient of 0 indicates no association. The results of the analysis are presented in Table 4.16(Danacica, 2017).

Table 4.16**Correlation**

		Transaction risk mgt	Economic risk Mgt	Translation risk Mgt	Exposure net risk Mgt	Financial Performance
Transaction risk mgt	Pearson	1				
	Correlation					
	Sig. (2-tailed)					
	N	140				
Economic risk Mgt	Pearson	0.296*	1			
	Correlation					
	Sig. (2-tailed)	0.020				
	N	140	140			
Translation risk Mgt	Pearson	0.516*	0.349	1		
	Correlation					
	Sig. (2-tailed)	0.022	0.012			
	N	140	140	140		
Exposure net risk Mgt	Pearson	0.238	0.449*	0.326*	1	
	Correlation					
	Sig. (2-tailed)	0.000	0.002	0.014		
	N	140	140	140	140	
Financial Performance	Pearson	0.587*	0.573*	0.638*	0.609*	1
	Correlation					
	Sig. (2-tailed)	0.007	0.003	0.000	0.011	
	N	140	140	140	140	140

The findings presented in Table 4.16 revealed a moderate positive correlation between transaction risk management and financial performance ($r=0.587$, $p=0.007$). Since the p-value of 0.007 is below the 0.05 threshold, it indicates that the relationship between transaction risk management and financial performance is statistically significant. This suggests that financial performance can be positively impacted by efficient management of foreign exchange transaction risk. The null hypothesis, according to which the financial performance of the top flower companies in Timau, Meru County, Kenya, is not significantly impacted by foreign exchange transaction risk management, was thus rejected by the study. The favorable correlation between financial performance and risk management for foreign exchange transactions is further supported by the significance of the p-value.

According to a study by Dae and Wamugo (2022), effective management of transaction risk, especially in foreign exchange, has been shown to positively influence the financial performance of firms. Additionally, Setiawanta et al.'s (2020) study produced similar findings, indicating that businesses that actively manage transaction risk typically outperform their counterparts in terms of financial success. These results are consistent with the study's conclusions, showing that financial performance can be improved by efficient risk management of foreign exchange transactions.

The study identified a significant moderate positive correlation between foreign exchange economic risk management and financial performance ($r=0.573$, $p=0.003$). The p-value of 0.003, being less than 0.05, confirms that the relationship is statistically significant. This finding suggests that implementing foreign exchange economic risk management

strategies has a notable influence on financial performance. The null hypothesis, which proposed that foreign exchange economic risk management has no appreciable effect on the financial performance of leading flower companies in Timau, Meru County, Kenya, was thus rejected, confirming a significant relationship between economic risk management practices and financial performance.

Furthermore, the study found a significant strong positive correlation ($r=0.638$, $p=0.000$) between financial performance and foreign exchange translation risk management. This relationship is statistically significant, according to the data, with a p-value of 0.000, significantly below the 0.05 cutoff. This demonstrates that adopting strategies to manage foreign exchange translation risk enhances financial performance. Additionally disproved was the original premise, which claimed that the financial performance of the leading flower companies in Timau, Meru County, Kenya, is not substantially impacted by foreign exchange translation risk management. The significant p-value supports the conclusion that managing translation risks positively impacts financial performance, highlighting the importance of integrating translation risk management into operational strategies.

According to Chance, and Brooks (2021), who explored the financial implications of exchange rate fluctuations, effective foreign exchange risk management can safeguard companies against the volatility inherent in global markets, thereby improving profitability and value. Similarly, Bae et al. (2018) emphasized that active management of currency risks not only protects the firm's cash flows but also contributes positively to its market valuation. Collectively, these studies indicate that adopting robust risk management strategies, including the management of foreign exchange translation risks, can greatly improve a company's financial performance. This aligns with the findings of

the current research conducted in Timau, Meru County, Kenya, which highlights the significant advantages gained through effective management of translation risks.

The research further revealed a strong and positive correlation ($r=0.609$, $p=0.011$) between exposure netting risk management and financial performance using Pearson correlation analysis. The computed p-value of $0.000 < 0.05$ indicates a statistically significant relationship between exposure netting risk management and financial performance. The study's findings disproved the null hypothesis because of the strong ($p < 0.05$) association between exposure-netting risk management and financial success, even though the original hypothesis suggested that exposure-netting risk management had no discernible effect on the financial performance of significant flower businesses in Timau Meru County, Kenya.

Maitha (2020) investigates the relationship between Kenyan manufacturing enterprises' financial performance and their foreign exchange risk management measures. The study findings provide insights into how effectively managing currency exposure can positively impact a firm's economic performance, a finding that aligns with the research outcomes relating to flower firms in Timau Meru County, Kenya. Moreover, Muiru, Kibet, and Kalui (2019) explore various strategies, including netting, for managing foreign exchange risk. They argue that such practices are crucial for shielding firms from the volatile impacts of currency fluctuations, which in turn, positively affects their financial stability and performance.

4.7 Diagnostic Tests

The study employed diagnostic evaluations to confirm that the data gathered aligned with the necessary criteria for regression analysis. The study segmented the independent variables into four key areas: management of forex transaction risk (evaluated through a composite score of futures and forward contracts usage), management of forex economic risk (assessed through a composite score of operational diversification and selection of plant locations), management of forex translation risk (evaluated using a composite score of currency swaps and hedging activities) and management of forex Exposure netting risk (natural hedging, netting and leading and lagging).

4.7.1 Normality Test

The critical premises for these evaluations included ensuring the normality of the data collected, confirming that there was no multicollinearity among predictor variables, ensuring the absence of autocorrelation in the variables over time, and verifying that the variables exhibited no stationarity. Following the technique described by Shatskikh and Melkumova (2016) the study employed the Shapiro-Wilk test to ascertain if the data fit a conventional normal distribution.

This particular test was selected to identify whether regression errors were normally distributed or exhibited skewness. The assumption of normal distribution for regression residuals is made when the p-value is less than 0.05, and it is presumed to be violated when the p-value exceeds 0.05. The results from these normality tests are compiled in Table 4.17.

Table 4.17**Normality Test Results**

		Shapiro-Wilk		
	Variables	statistic	df	sig.
Valid	Transaction risk management	0.638	140	0.033
	Economic risk Management	0.672	140	0.028
	Translation risk Management	0.654	140	0.042
	Exposure net risk Management	0.631	140	0.043

The effect of foreign exchange risk measurement tests of normality shows how normal the independent variable statement responses were, and were done using the Shapiro-Wilk test. The results in Table 4.16 revealed that all the statement responses for transaction risk management were normally distributed since they were below the significance value of 0.05. The findings also indicated that the statements regarding economic risk management were normally distributed since they had significance value less than the significant 0.05. Translation risk management statements were normally distributed with a value of 0.043 while exposure net risk management were normally distributed since they had significance value less than the significant 0.05.

4.7.2 Multicollinearity Test

The second assumption to be tested is that there was no multicollinearity which tests whether there is a high linear relationship between any two of the independent variables in the research (Daoud, 2017). This test was done using Pearson's correlation (R) test

where a high relationship within the independent variables indicated a high relationship of the independent variables. A correlation value of 0.5 and above of the independent variables would indicate a high multicollinearity which would force the study to drop one independent variable.

Table 4.18

Multicollinearity Test

		Transaction risk mgt	Economic risk Mgt	Translation risk Mgt	Exposure net risk Mgt
Transaction risk mgt	Pearson	1			
	Correlation				
	Sig. (2-tailed)				
Economic risk Mgt	N	140			
	Pearson	0.341	1		
	Correlation				
Translation risk Mgt	Sig. (2-tailed)	0.000			
	N	140	140		
	Pearson	0.264	0.310	1	
Exposure net risk Mgt	Correlation				
	Sig. (2-tailed)	0.003	0.008		
	N	140	140	140	
	Pearson	0.479	0.327	0.217**	1
	Correlation				
	Sig. (2-tailed)	0.002	0.012	0.010	
N		140	140	140	140

The test of multicollinearity was carried out through Pearson's correlation coefficient, indicating no significant linear relationships among the predictor variables for transaction risk management and translation risk management (0.264), as well as between economic

risk management and translation risk management (0.310). Similarly, no significant linear relationships were observed between transaction risk management and economic risk management (0.341), or between exposure net risk management and transaction risk management (0.479). The absence of multicollinearity is confirmed when the linear association between any pair of predictor variables does not exceed 0.9.

4.7.3 Autocorrelation test

The third assumption is the autocorrelation of the variables, which refers to the extent of correlation of a particular variable between two successive period intervals. It is used when a time series and a period value can be predicted based on the preceding value (Manuca and Savit, 1996). The Durbin-Watson statistic was applied to conduct the test, whereby values below two show no autocorrelation.

Table 4.19

Durbin-Watson Test				
R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
0.818 ^a	0.669	0.742	0.61	2.134

a. Predictors: (Constant), Transaction Risk Mngt, Economic Risk Mngt, Translation Risk Mngt, Exposure net risk Mgt

b. Dependent Variable: Financial performance

The Durbin-Watson statistic indicated a value of 2.134 which indicated a negative autocorrelation of the independent variables in the successive periods 2020, 2021 and 2022.

4.8 Regression Analysis

To examine the impact of economic, translation, and foreign exchange transaction risk management on flower companies' financial success (as determined by return on capital employed), a multiple linear regression model was created. A ratio scale was used to assess the dependent variable, return on capital employed, whereas the independent variables were ordinal. The mean of the two indicators for each independent variable was calculated and used in the regression analysis to provide a single representative value for each independent variable. Table 4.20 displays the results of the fitted model.

Table 4.20

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.884 ^a	0.727	0.772		0.6347

a. Predictors: (Constant), Translation Risk Management, Economic Risk Management, Transaction Risk Management, Exposure Net Management

The analysis summarized in Table 4.20 provides detailed insights into the model's performance, focusing on key metrics such as R, R-squared (R^2), adjusted R-squared, and the standard error of the estimate. The multiple correlation coefficient (R) was calculated as 0.884, reflecting a strong positive relationship between the variables. The dependent variable's R^2 value, which shows how much of its variance can be accounted for by the

independent variables, was 0.727. In addition, the model's adjusted R² (which takes into consideration the number of predictors) was 0.772, suggesting that it still has a significant amount of explanatory power. The estimate's standard error, which displays the average departure of the observed data from the regression line, was 0.6347.

Notably, the adjusted R² demonstrates the effectiveness of foreign exchange risk management strategies in accounting for approximately 72.7% of the variance in financial performance among flower businesses in Timau Meru county. This high percentage underlines the importance of managing foreign exchange transaction risk, economic risk, translation risk, and exposure net management to enhance financial outcomes. The regression analysis employs a linear approach, confirming that a substantial 77.2% of the total variation observed in the model can be attributed directly to the four outlined predictor variables, proving their significant influence on the firms' financial performance.

Table 4.21

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.508	4	0.377	62.936	.000 ^b
Residual	54.378	135	0.403		
Total	55.886	139			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Translation Risk Management, Economic Risk Management, Transaction Risk Management, Exposure Net Management

The ANOVA Table 4.21 above analysed whether the developed regression model fitted the data well, and if the predictor variables adequately forecast the financial performance among flower firms in Timau Meru county. The model's statistical relevance was assessed by comparing the resultant p-value to the conventional significance level. $F(4, 135) = 62.936$ with a p-value of 0.000, which is less than 0.05, was the result of the F-test, which takes degrees of freedom into account. This finding suggests that the model's predictor variables are statistically significant in predicting Timau, Meru County's floral businesses' financial success. Table 4.22 provides the regression coefficients for each variable, highlighting the individual effect of each predictor on the outcome variable while holding the other predictors constant.

Table 4.22**Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.015	0.305		11.524	0.023
	Translation Risk Management	0.314	0.044	0.269	1.009	0.085
	Economic Risk Management	0.201	0.044	0.116	1.353	0.037
	Transaction Risk Management	0.442	0.049	0.175	0.857	0.001
	Exposure Net Management	0.330	0.052	0.250	0.567	0.006

a. Dependent Variable: Financial Performance

The hypothesized model can be translated as follows:

$$\text{Financial Performance} = -1.015 + 0.314X1 + 0.201X2 + 0.442X3 + 0.330X4$$

Where;

X1 is management of foreign exchange transaction risk

X2 is management of foreign exchange economic risk

X3 is management of foreign exchange translation risk

X4 is management of foreign exchange exposure net risk

The framework indicates that all independent variables, recorded on identical (Likert) scales, are significantly influential to the model, with the constant showcasing its

relevance, thus justifying the use of unstandardized B-coefficients. The results of the analysis showed that transaction risk management had a coefficient of 0.442 and a significance level of 0.001, with the latter being below the typical cutoff of 0.05. This is an indication that a unit improvement on transaction risk management enhances financial performance by 0.442 units, also management of risks associated with foreign exchange transactions significantly impacts financial performance at a 95 percent confidence interval. This is in line with research by Mbaka (2016); Banafa (2015); Ahmed (2015) that showed a strong correlation between profitability and risk management in foreign exchange transactions. It's possible that these studies' similar findings stem from a common understanding of how risk management in foreign exchange transactions affects financial performance.

The management of foreign exchange economic risk showed a coefficient of 0.201 and a significance value of 0.037. The results indicate that a one-unit improvement in economic risk management results in a 0.201-unit gain in financial performance because the significance value of 0.037 is below the 0.05 cutoff. This suggests that the financial performance of flower businesses in Timau, Meru County, Kenya, is significantly impacted by foreign exchange economic risk management. These results align with prior research by Muriuki (2013) and Dogruel et al. (2011) which found that managing foreign exchange economic risk influences the net income of listed companies.

The investigation into foreign exchange translation risk management showed a coefficient value of 0.085 and a significance level of 0.314. With the observed significance level being 0.085, which is above the threshold of 0.05, it was concluded that the management

of foreign exchange translation risks doesn't substantially affect the financial outcomes of flower businesses in Timau Meru County, Kenya. This conclusion indicated that such risk management practices had a significance level of 0.085, thus not markedly impacting the financial performance of these companies. This outcome is in stark contrast to previous research by Runo (2009) and He et al. (2014) which identified a substantial impact of managing foreign exchange translation risks on the financial performance of certain banks.

A p-value of 0.001 and a coefficient of $\beta=0.330$ indicated that exposure net management significantly and favorably impacted financial performance, according to the regression analysis. This suggests that financial performance rises by 0.330 units for every unit improvement in exposure net management. The findings highlight that exposure net management is a critical factor in enhancing financial performance. The significance value of less than 0.05 confirms that exposure net management has a meaningful impact on the financial performance of flower firms in Timau, Meru County, Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions, and recommendations derived from the study on the impact of foreign exchange risk management on the financial performance of flower firms in Timau, Meru County, Kenya. It outlines a concise summary of the findings, conclusions drawn from the analysis, and recommendations based on the study's outcomes.

5.2 Summary

Kenyan companies engaged in the exportation of cut flowers have significantly contributed to the nation's foreign exchange earnings. Operating with foreign currencies has, however, introduced complexities in forecasting revenue and appraising company assets. Consequently, this research aimed to examine how managing foreign exchange risks impacts the financial outcomes of flower firms in Kenya. The investigation focused on four specific areas of risk management: transactions, economic exposure, translation and exposure net. To establish a frame of reference and anticipate outcomes, the research reviewed existing studies, drawing upon the International Fisher Effect Theory, New Institutional Economics Theory, and the Rational Expectations Theory. Utilizing an exploratory research design, the study focused on flower firm exporters located in Kenya, specifically targeting firms within Timau Meru county due to the manageable size of this group. The collection of primary data was followed by analysis through descriptive and inferential statistic via SPSS v.27.

5.2.1 Foreign Exchange Transaction Risk Management and Financial Performance

The first objective of the research was to evaluate how managing the risk associated with foreign currency transactions impacts the financial outcomes of leading floral companies in Timau Meru County, Kenya. Descriptive analysis revealed that these firms extensively utilize foreign exchange transaction risk management, including futures and forward contracts. This suggests a consensus among respondents on the substantial application of these risk management strategies by the flower businesses. Furthermore, regression analysis revealed that controlling foreign exchange transaction risk significantly affects these companies' financial performance at a five percent significance level.

5.2.2 Foreign Exchange Economic Risk Management and Financial Performance

The second study goal was to examine how the financial performance of the leading flower companies in Timau Meru County, Kenya, was impacted by foreign exchange economic risk management.

The results, obtained through descriptive analysis, showed that the mitigation of foreign exchange economic risk through operational diversification was extensive, whereas the adoption of diverse plant varieties was implemented to a moderate degree. This suggests that the management of economic risks among flower companies was conducted to a moderate level. Furthermore, regression analysis revealed that the management of foreign exchange economic risks significantly impacted the financial outcomes of the flower businesses in Timau Meru County, Kenya.

5.2.3 Foreign Exchange Translation Risk Management and Financial Performance

The third study goal was to examine how the financial performance of the leading flower companies in Timau Meru County, Kenya, was impacted by foreign exchange translation risk management.

The descriptive analysis revealed that foreign exchange translation risk management was moderately utilized, particularly through the application of currency swaps and hedging, indicating a moderate adoption level by the flower firms. Regression analysis, however, revealed that the financial performance of the floral companies was not significantly impacted by foreign exchange transaction risk management.

5.2.4 Foreign Exposure Netting Risk Management and Financial Performance

The study's fourth objective was to examine the impact of exposure netting risk management on the financial performance of leading flower firms in Timau, Meru County, Kenya. The descriptive findings indicated that a significant enhancement in flower firm's financial performance was through effective exposure net risk management. Firms are proactively employing risk hedging instruments to reduce exposure net impact, and are incorporating exposure net risk management within their strategic decision-making processes. Further, regression analysis revealed that the Exposure Netting risk management of foreign exchange economic risks significantly impacted the financial outcomes of the flower businesses in Timau Meru County, Kenya.

5.3 Conclusions

The study findings assisted in making study conclusions that might help in implementation of policies with regards to the research objectives. Regarding the first objective, descriptive analysis revealed that foreign exchange transaction risk management significantly influences financial performance. Regression analysis showed that, at a 95% confidence level, foreign exchange transaction risk management has a significant impact on Kenyan flower companies' return on capital. These results imply that the financial success of floral companies is impacted by the risk management of foreign exchange transactions. This could be explained by the fact that changes in profit brought on by variations in foreign exchange do not always affect the capital that the businesses use. The gains that are redistributed and then reinvested in the businesses are frequently earmarked for particular capital needs rather than being directly proportionate to the profit after taxes.

The findings related to the second objective revealed, through descriptive analysis, that economic risk management was widely adopted by flower firms. Regression analysis further demonstrated that foreign exchange economic risk management significantly impacts the return on capital employed for these firms. The study came to the conclusion that the return on capital used by Kenyan flower companies is influenced by foreign exchange economic risk management.

For the third objective, descriptive analysis indicated that translation risk management was extensively practiced by flower firms in Kenya. However, regression analysis revealed that foreign exchange translation risk management does not have a statistically significant effect on the profitability of flower firms. The study concluded that while

foreign exchange translation management affects profitability, its impact is not substantial. This may be attributed to the relatively small proportion of foreign-denominated assets, such as trade receivables, in relation to the overall capital employed. Regarding the fourth objective, the study concluded that effectively managing exposure net risk, particularly through the application of hedging instruments and the integration of risk management into strategic decision-making, is vital in improving the financial performance of flower firms. This conclusion is supported by regression analysis, which identified a significant positive link between exposure net risk management and financial performance. The findings emphasize the importance of exposure net risk management in addressing foreign exchange economic risks and enhancing the financial outcomes of flower firms in Timau, Meru County, Kenya.

5.4 Policy Recommendations

The research suggests that flower businesses in Kenya, noticing that only a handful currently have risk management strategies, should adopt such policies. These strategies are essential for establishing a reliable framework to cope with significant foreign exchange rate variations. Furthermore, to mitigate the impact of currency transaction risks, horticultural companies are advised to use various methods to protect their operations. These methods include the adoption of suitable cost-accounting review processes and the consolidation of financial statements.

In terms of managing risks associated with foreign currency transactions, the study found that companies dealing in multiple currencies are exposed to transaction risks due to the potential for rapid exchange rate fluctuations. Consequently, it recommends that upper management in these horticultural companies make use of diverse forward contracts and

options. This approach would help them effectively navigate these risks and is likely to positively influence their financial performance.

To effectively manage foreign exchange economic risk, it's crucial that the senior management of horticultural businesses adopts a strategy that includes diversifying their product markets and cultivation locations, increasing flexibility in their sourcing strategies, and seeking varied financing options. By spreading their operations across a broader range of markets and farming locations, they can mitigate the risk associated with concentrating their resources in limited areas. This approach not only spreads their economic risk but also contributes to a positive impact on their financial performance. Additionally, it is important for leadership within these businesses to secure alternative suppliers for critical inputs, ensuring that fluctuations in exchange rates do not significantly harm their performance due to over-reliance on a single source that may become prohibitively expensive. Furthermore, by establishing their presence in multiple capital markets, flower firms can ensure continual access to competitively priced capital, thereby bolstering their financial performance.

It is recommended that government bodies and policy developers establish a system for keeping tabs on foreign exchange rates while guiding flower businesses on strategies to optimize advantages and minimize risks associated with exchange rate variances. The research advises regulatory bodies within the flower industry to collaborate with and educate flower companies about recognizing and handling foreign exchange risks, as well as enhancing their export performances. Additionally, facilitating the formation of a network for flower businesses to exchange insights on export trading and managing foreign exchange risks could prove beneficial.

5.5 Suggestions for Further Research

Based on the outcomes and advice provided in this study, it recommends that further research could be conducted by scholars and future researchers in different economic segments to explore the impact of exchange rates on financial outcomes, extending beyond just the floriculture sector. There's also an opportunity to investigate additional factors and aspects that might influence the financial performance of flower companies in Kenya, aside from foreign exchange rates. The study could also broaden its focus to include financial performance indicators other than return on capital employed, such as export volumes or flower production rates. Furthermore, employing different analytical methods could offer new insights that differ from those presented in this study.

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APPENDICIES

Appendix I: Introduction Letter

Dear Respondent,

My name is Kalthum Nuna, and I am currently enrolled in the Master of Business Administration (MBA) program with a focus on Finance at Kenya Methodist University (KeMU). As part of the requirements for completing my degree, I am conducting a research study. I would greatly appreciate your participation in my study, which aims to examine the effect of foreign exchange risk management on the financial performance of leading flower firms located in Timau, Meru County, Kenya.

Your participation in this research is invaluable, and I would be grateful if you could provide accurate responses to the questions that follow. Please rest assured that your responses will be exclusively utilized for research purposes, and your personal information will be kept strictly confidential.

Thank you in advance for your time, participation, and cooperation in this research endeavor.

Yours faithfully,

KalthumNunaAbdullahi

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Appendix II: Questionnaires

SECTION I: GENERAL INFORMATION

Statement	Items	Tick
Kindly indicate the highest education level you have attained	University	
	Middle level college	
	Secondary	
	Primary	
Indicate the number of years you have been exporting?	Below 2 years	
	2 to 5 years	
	6 to 10 years	
	Above 10 years	
Currency of invoice		
Does your firm have a formal foreign currency risk management policy or programme?	Yes	
	No	
If yes above, which of the following risk management methods does your firm use?	Hedging with derivatives	
	Leading and lagging	
	Payment's netting	
	Prepayment	

SECTION II: FOREIGN EXCHANGE RISK MANAGEMENT

Transaction Risk Management

With a scale of 1 denoting Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 denoting Strongly agree, indicate the extent to which you agree with the provided statements below regarding foreign exchange transactions risk management by the firm.:

STATEMENTS	1	2	3	4	5
The organization engages in futures contract usage					
The organization engages in forward contract usage to manage transaction risk					
The organization likes transacting mostly in local currency to manage transaction risk					
The organization matches foreign currency receipts with outflows in its transactions					

Economic Risk Management

With a scale of 1 denoting Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 denoting Strongly agree, indicate the extent to which you agree with the provided statements below regarding how the firm manages economic foreign risk:

STATEMENTS	1	2	3	4	5
The firm engages in in operational diversity to manage its foreign risk exposure					
The firm has plants in various locations to diversify its operations geographically					
The firm builds protection into its commercial relationships and contracts to manage foreign exchange risk					
The firm maintains bank accounts in the foreign currencies that it usually transacts in					

Translation Risk Management

With a scale of 1 denoting Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 denoting Strongly agree, indicate the extent to which you agree with the provided statements below regarding to foreign exchange translation risk management:

STATEMENTS	1	2	3	4	5
The firm uses the temporal method of converting its currency to the currency of its parent					
The firm reports its foreign currency transactions using the current rate method					

The firm simply assumes the translation exposure because it accepts it as part of their investment					
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Exposure Net management

With a scale of 1 denoting Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 denoting Strongly agree, indicate the extent to which you agree with the provided statements below regarding to foreign exchange translation risk management:

STATEMENTS	1	2	3	4	5
Effective exposure net risk management positively impacts financial performance.					
The firm uses risk hedging instrumentsto minimize the impact of exposure net					
organization integrate exposure net risk management into overall strategic decision-making processes, aligning it with long-term financial goals and objectives					

THANK YOU